

EXPECTED

A-RIB:GLN-S2

3	0
4	0
5	3
6	5
7	8
8	12
9	19

M2G-P:GLU-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

U-Y:GLU-S1

3	0
4	0
5	3
6	0
7	10
8	15
9	24

C-Y:HIS-CA

3	0
4	0
5	0
6	2
7	4
8	6
9	10

FHU-RIB:ASP-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

U31-P:HIS-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

C31-RIB:GLN-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

H2U-RIB:PHE-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-MY:GLN-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

H2U-MY:LEU-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

QUO-M5:PHE-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-RIB:THR-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-RIB:ARG-S2

3 0
4 0
5 7
6 12
7 19
8 30
9 45

FHU-P:TYR-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-P:TRP-CA

3 0
4 0

5 1
6 2
7 3
8 5
9 9

C-P:TRP-S1

3 0
4 0
5 0
6 1
7 2
8 3
9 5

C31-RIB:PHE-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-Y:ARG-S2

3 0
4 0
5 3
6 5
7 8
8 13
9 20

U31-P:ARG-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

DA-M6:SER-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

M2G-P:SER-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

DA-RIB:MET-S2

3 0
4 0
5 0
6 0

7	0
8	0
9	0
A-R5:HIS-CA	
3	0
4	0
5	0
6	3
7	5
8	8
9	13
G-RIB:ILE-S1	
3	0
4	0
5	6
6	10
7	15
8	24
9	37
C31-MY:LEU-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
IU-RIB:VAL-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-Y:ILE-S1	
3	0
4	0
5	3
6	6
7	10
8	15
9	24
U-P:LYS-CA	
3	0
4	0
5	3
6	5
7	8
8	13
9	20
A-P:TRP-S1	
3	0
4	0
5	1
6	1
7	3
8	4

9 7
C-P:GLN-S2
3 0
4 0
5 2
6 4
7 6
8 10
9 15
QUO-RIB:PHE-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-RIB:LYS-CA
3 0
4 0
5 3
6 5
7 8
8 13
9 20
C-P:VAL-S1
3 0
4 0
5 5
6 8
7 13
8 20
9 31
G-R5:LYS-CA
3 0
4 0
5 7
6 12
7 19
8 31
9 47
GTP-M5:ASN-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
GTP-RIB:ARG-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
IU-RIB:GLN-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

DA-M5:ASN-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-RIB:GLU-CA

3 0
4 0
5 8
6 14
7 22
8 36
9 55

DA-M6:GLN-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-R6:ALA-S1

3 0
4 1
5 8
6 15
7 23
8 36
9 56

A-R5:LEU-CA

3 0
4 0
5 0
6 12
7 19
8 31
9 47

5BU-RIB:PRO-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FMU-RIB:ALA-CA

3 0
4 0

5	0
6	0
7	0
8	0
9	0
C-P:ARG-S2	
3	0
4	0
5	4
6	7
7	12
8	19
9	29
IU-RIB:LYS-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-P:LEU-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R5:VAL-CA	
3	0
4	0
5	0
6	13
7	20
8	32
9	50
A-RIB:LEU-S1	
3	0
4	0
5	7
6	12
7	19
8	31
9	47
A-P:VAL-S1	
3	0
4	0
5	6
6	10
7	16
8	26
9	39
G-R5:HIS-S2	
3	0
4	0
5	0
6	4

7 6
8 10
9 16

DA-RIB:ASN-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-Y:SER-CA

3 0
4 0
5 2
6 4
7 6
8 10
9 16

5BU-P:ILE-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

IU-MY:THR-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C31-RIB:SER-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-P:THR-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-P:ARG-S2

3 0
4 0
5 0
6 0
7 0
8 0

9 0
U-RIB:THR-S1
3 0
4 0
5 2
6 4
7 6
8 9
9 14
U-RIB:HIS-S2
3 0
4 0
5 1
6 1
7 2
8 4
9 7
G-R6:GLN-CA
3 0
4 0
5 0
6 6
7 10
8 16
9 24
FMU-RIB:VAL-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-RIB:LYS-S2
3 0
4 0
5 5
6 10
7 15
8 24
9 37
C-P:LEU-CA
3 0
4 0
5 6
6 10
7 15
8 24
9 37
A-R6:ALA-S1
3 0
4 0
5 7
6 12
7 18
8 29
9 44
C-Y:ASN-S2

3	0
4	0
5	2
6	4
7	7
8	11
9	17

C31-MY:THR-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

IU-MY:SER-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

U-RIB:ALA-CA

3	0
4	0
5	3
6	6
7	10
8	16
9	24

U31-P:ARG-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

G-P:PRO-S1

3	0
4	0
5	4
6	8
7	12
8	20
9	31

A-R5:ILE-CA

3	0
4	0
5	0
6	8
7	12
8	19
9	30

DA-M6:SER-S1

3	0
4	0

5 0
6 0
7 0
8 0
9 0

A-R6:HIS-S1

3 0
4 0
5 2
6 3
7 5
8 8
9 13

DA-RIB:ASN-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-P:GLN-S1

3 0
4 0
5 3
6 5
7 8
8 12
9 19

C-RIB:ASN-S2

3 0
4 0
5 2
6 4
7 7
8 11
9 17

C31-RIB:PHE-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C31-P:PHE-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C31-P:GLN-CA

3 0
4 0
5 0
6 0

7	0
8	0
9	0
GTP-RIB:ARG-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-RIB:HIS-S1	
3	0
4	0
5	2
6	4
7	6
8	10
9	16
A-P:GLU-S2	
3	0
4	0
5	0
6	11
7	18
8	28
9	43
IU-P:ASP-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-P:ALA-S1	
3	0
4	0
5	8
6	15
7	23
8	36
9	55
FMU-MY:ASP-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R5:TRP-S1	
3	0
4	0
5	0
6	1
7	3
8	4

9	7
U31-P:ASP-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-RIB:GLN-CA	
3	0
4	0
5	2
6	4
7	6
8	10
9	15
U-RIB:ARG-S2	
3	0
4	0
5	3
6	5
7	8
8	13
9	20
C-P:HIS-S2	
3	0
4	0
5	1
6	2
7	4
8	6
9	10
FMU-RIB:PHE-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-RIB:GLN-CA	
3	0
4	0
5	3
6	6
7	10
8	16
9	24
G-R5:LEU-S2	
3	0
4	0
5	9
6	16
7	24
8	39
9	59
U-RIB:PHE-CA	

3	0
4	0
5	1
6	3
7	4
8	7
9	11

C31-P:ASP-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

U-Y:GLN-CA

3	0
4	0
5	1
6	2
7	4
8	7
9	10

A-R6:TRP-CA

3	0
4	0
5	0
6	0
7	3
8	4
9	7

5BU-P:ARG-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

A-R5:GLN-CA

3	0
4	0
5	3
6	5
7	8
8	12
9	19

C-RIB:ASP-S2

3	0
4	0
5	4
6	7
7	10
8	17
9	26

5BU-P:THR-CA

3	0
4	0

5	0
6	0
7	0
8	0
9	0
FMU-MY:ASP-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R5:TRP-S2	
3	0
4	0
5	1
6	2
7	3
8	5
9	9
U-RIB:MET-S2	
3	0
4	0
5	1
6	2
7	3
8	4
9	7
I-RIB:TRP-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-P:GLN-S2	
3	0
4	0
5	3
6	6
7	9
8	15
9	23
DA-M5:VAL-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-RIB:ILE-CA	
3	0
4	0
5	0
6	0

7 6
8 10
9 16

QUO-M6:ARG-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-R5:LYS-S1

3 0
4 0
5 7
6 12
7 19
8 31
9 47

U31-P:ASN-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-P:ILE-S1

3 0
4 0
5 4
6 8
7 12
8 19
9 30

U-P:LYS-S2

3 0
4 0
5 3
6 5
7 8
8 13
9 20

A-R6:GLN-S1

3 0
4 0
5 3
6 5
7 8
8 12
9 19

U31-RIB:THR-S1

3 0
4 0
5 0
6 0
7 0
8 0

9 0
C-P:TRP-CA
3 0
4 0
5 0
6 1
7 2
8 3
9 5
A-RIB:SER-S1
3 0
4 0
5 4
6 8
7 12
8 19
9 29
FMU-P:ALA-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-Y:TRP-CA
3 0
4 0
5 0
6 1
7 1
8 2
9 4
C-Y:THR-S1
3 0
4 0
5 3
6 5
7 9
8 14
9 21
GTP-M6:THR-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-RIB:TYR-S1
3 0
4 0
5 2
6 3
7 5
8 9
9 14
GTP-RIB:SER-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0
FMU-RIB:CYS-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-M6:PHE-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-P:ASP-S2	
3	0
4	0
5	2
6	4
7	7
8	11
9	17
DA-M5:ASP-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-M6:ASP-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-P:LYS-S1	
3	0
4	0
5	6
6	10
7	15
8	24
9	37
C-P:THR-CA	
3	0
4	0

5	3
6	5
7	9
8	14
9	21
A-P:ASP-S1	
3	0
4	0
5	5
6	9
7	13
8	21
9	33
G-P:TRP-S1	
3	0
4	0
5	1
6	2
7	3
8	5
9	9
A-RIB:GLU-S1	
3	0
4	0
5	6
6	11
7	18
8	28
9	43
C31-MY:LEU-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FMU-MY:ASP-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-RIB:GLN-S1	
3	0
4	0
5	3
6	6
7	10
8	16
9	24
FHU-RIB:TYR-S1	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
C-P:TYR-S1	
3	0
4	0
5	2
6	3
7	5
8	9
9	14
G-R5:ARG-CA	
3	0
4	0
5	7
6	12
7	19
8	30
9	46
FHU-RIB:ARG-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
DA-M6:HIS-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C31-P:MET-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
H2U-MY:TRP-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
DA-RIB:ARG-S1	
3	0
4	0
5	0
6	0
7	0
8	0

9 0
A-R6:LEU-S2

3 0
4 0
5 7
6 12
7 19
8 31
9 47

C-Y:PRO-CA

3 0
4 0
5 3
6 5
7 8
8 13
9 20

QUO-M5:LYS-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-RIB:VAL-CA

3 0
4 0
5 6
6 10
7 16
8 26
9 39

GTP-RIB:ALA-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-R5:PRO-CA

3 0
4 0
5 5
6 8
7 13
8 20
9 31

A-R5:PHE-CA

3 0
4 0
5 0
6 5
7 8
8 13
9 20

G-R6:ARG-CA

3	0
4	0
5	7
6	12
7	19
8	30
9	46

U-P:LEU-S1

3	0
4	0
5	0
6	7
7	10
8	17
9	26

C-Y:HIS-S1

3	0
4	0
5	1
6	2
7	4
8	6
9	10

G-R5:PHE-S1

3	0
4	0
5	0
6	6
7	10
8	16
9	25

U-Y:LEU-S2

3	0
4	0
5	4
6	7
7	10
8	17
9	26

U-RIB:TYR-S1

3	0
4	0
5	0
6	2
7	4
8	6
9	9

C31-MY:PHE-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

U-Y:ARG-CA

3	0
4	0

5 3
6 5
7 8
8 13
9 20

U-RIB:MET-CA

3 0
4 0
5 1
6 2
7 3
8 4
9 7

FMU-RIB:GLN-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

IU-RIB:PRO-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

IU-P:ILE-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

QUO-M6:ASN-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-Y:HIS-S2

3 0
4 0
5 1
6 1
7 2
8 4
9 7

U34-P:TYR-S1

3 0
4 0
5 0
6 0

7	0
8	0
9	0
U34-P:GLU-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
H2U-MY:ARG-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FMU-MY:PRO-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-Y:GLU-S2	
3	0
4	0
5	5
6	9
7	14
8	22
9	34
C31-P:ALA-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-Y:ILE-CA	
3	0
4	0
5	0
6	6
7	10
8	15
9	24
U-Y:VAL-S1	
3	0
4	0
5	3
6	5
7	9
8	14

9 21
U31-RIB:GLN-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U31-RIB:GLU-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
FHU-P:PRO-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
DA-M5:THR-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-R5:ASP-CA
3 0
4 0
5 0
6 11
7 17
8 27
9 41
U31-P:ASP-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-P:TYR-S1
3 0
4 0
5 2
6 4
7 7
8 11
9 17
C-Y:THR-CA

3 0
4 0
5 0
6 5
7 9
8 14
9 21

C31-MY:SER-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FMU-P:ASP-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

QUO-RIB:ASN-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-RIB:GLU-S2

3 0
4 0
5 5
6 9
7 14
8 22
9 34

U-RIB:GLN-S2

3 0
4 0
5 1
6 2
7 4
8 6
9 10

GTP-M6:ASN-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

M2G-P:GLY-CA

3 0
4 0

5 0
6 0
7 0
8 0
9 0

G-R6:ASN-S2

3 0
4 0
5 4
6 7
7 11
8 17
9 26

G-R5:MET-CA

3 0
4 0
5 2
6 4
7 7
8 11
9 16

C31-RIB:THR-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

QUO-P:LEU-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-P:SER-S1

3 0
4 0
5 2
6 4
7 6
8 10
9 16

U34-P:TYR-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

DA-M5:GLN-CA

3 0
4 0
5 0
6 0

7	0
8	0
9	0
DA-RIB:ARG-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
DA-RIB:MET-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-P:LEU-CA	
3	0
4	0
5	9
6	16
7	24
8	38
9	59
FHU-MY:ARG-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-Y:SER-S1	
3	0
4	0
5	2
6	4
7	6
8	10
9	16
A-R5:LYS-S2	
3	0
4	0
5	5
6	10
7	15
8	24
9	37
U-RIB:PRO-CA	
3	0
4	0
5	0
6	3
7	5
8	9

9 13
U-RIB:LYS-S1
3 0
4 0
5 0
6 5
7 8
8 13
9 20
A-R6:GLU-S2
3 0
4 0
5 6
6 11
7 18
8 28
9 43
IU-MY:THR-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
H2U-MY:GLU-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-RIB:TRP-S2
3 0
4 0
5 1
6 1
7 3
8 4
9 7
C-RIB:ARG-CA
3 0
4 0
5 4
6 7
7 12
8 19
9 29
FMU-RIB:VAL-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
QUO-M6:PHE-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

H2U-P:TRP-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

QUO-M6:ASP-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-Y:THR-S1

3 0
4 0
5 2
6 4
7 6
8 9
9 14

U31-MY:TYR-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-RIB:ARG-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-R6:PRO-CA

3 0
4 0
5 3
6 6
7 10
8 16
9 25

A-P:GLN-CA

3 0
4 0

5	3
6	5
7	8
8	12
9	19
A-R5:THR-S1	
3	0
4	0
5	4
6	7
7	11
8	17
9	27
U34-P:ARG-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-P:HIS-CA	
3	0
4	0
5	1
6	2
7	4
8	6
9	10
IU-MY:TYR-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-P:LYS-S2	
3	0
4	0
5	7
6	12
7	19
8	30
9	46
IU-RIB:LEU-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
5BU-MY:ARG-S2	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
A-R6:TYR-S2	
3	0
4	0
5	2
6	4
7	7
8	11
9	17
QUO-M5:ARG-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
5BU-RIB:ARG-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-P:ASP-S2	
3	0
4	0
5	4
6	7
7	10
8	17
9	25
G-R6:MET-S1	
3	0
4	0
5	2
6	4
7	7
8	11
9	16
GTP-M5:ASP-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FMU-RIB:GLN-S1	
3	0
4	0
5	0
6	0
7	0
8	0

9 0
DA-RIB:TYR-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
5BU-P:SER-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C31-RIB:ALA-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-P:ILE-CA
3 0
4 0
5 4
6 8
7 12
8 19
9 30
C-P:ASN-S1
3 0
4 0
5 2
6 4
7 7
8 11
9 17
C31-P:TYR-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-R6:ASN-CA
3 0
4 0
5 0
6 7
7 11
8 17
9 26
QUO-M6:ASN-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

IU-RIB:ILE-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-RIB:PHE-S2

3 0
4 0
5 4
6 6
7 10
8 16
9 25

A-P:HIS-S2

3 0
4 0
5 2
6 3
7 5
8 8
9 13

FHU-MY:THR-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C31-RIB:THR-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-R6:TRP-S2

3 0
4 0
5 1
6 1
7 3
8 4
9 7

A-P:GLU-CA

3 0
4 0

5	6
6	0
7	18
8	28
9	43
G-R6:GLU-S2	
3	0
4	0
5	8
6	14
7	22
8	35
9	54
A-R6:MET-S1	
3	0
4	0
5	2
6	3
7	5
8	8
9	13
QUO-M6:GLU-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C31-RIB:ASP-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-RIB:ALA-S1	
3	0
4	0
5	3
6	6
7	10
8	16
9	24
A-R5:CYS-S1	
3	0
4	0
5	0
6	1
7	2
8	3
9	5
U-Y:TRP-S2	
3	0
4	0
5	0
6	1

7	1
8	0
9	4
A-P:ASP-CA	
3	0
4	0
5	5
6	0
7	13
8	21
9	33
G-R5:ASP-S1	
3	0
4	0
5	0
6	11
7	17
8	27
9	41
U31-MY:THR-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U34-RIB:SER-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R6:ASN-CA	
3	0
4	0
5	3
6	5
7	8
8	14
9	21
U-P:GLN-CA	
3	0
4	0
5	1
6	2
7	4
8	7
9	10
QUO-RIB:ASN-S1	
3	0
4	0
5	0
6	0
7	0
8	0

9 0
U-Y:ASN-CA
3 0
4 0
5 1
6 3
7 4
8 7
9 11
FMU-RIB:ARG-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C31-RIB:TYR-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
H2U-MY:GLU-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-R6:GLY-CA
3 0
4 0
5 6
6 10
7 15
8 25
9 38
C31-MY:ASP-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
QUO-RIB:PHE-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-P:GLY-CA

3	0
4	0
5	3
6	5
7	8
8	13
9	21
IU-P:HIS-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-P:THR-S1	
3	0
4	0
5	3
6	5
7	9
8	14
9	21
C-P:ILE-CA	
3	0
4	0
5	0
6	6
7	9
8	15
9	23
U31-MY:VAL-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-RIB:GLU-CA	
3	0
4	0
5	7
6	11
7	18
8	28
9	43
QUO-M6:LYS-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-RIB:ARG-CA	
3	0
4	0

5	5
6	9
7	15
8	24
9	36
C31-P:LEU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FMU-MY:GLN-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-Y:LYS-CA	
3	0
4	0
5	0
6	8
7	12
8	19
9	30
G-R6:TRP-CA	
3	0
4	0
5	1
6	2
7	3
8	5
9	9
FMU-P:PHE-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R5:CYS-CA	
3	0
4	0
5	0
6	1
7	2
8	3
9	5
C-RIB:LEU-CA	
3	0
4	0
5	6
6	10

7	15
8	24
9	38
C-RIB:TYR-S2	
3	0
4	0
5	2
6	3
7	5
8	9
9	14
C-Y:GLN-CA	
3	0
4	0
5	0
6	4
7	6
8	10
9	15
G-R6:ASP-S2	
3	0
4	0
5	6
6	11
7	17
8	26
9	40
G-R6:GLN-S2	
3	0
4	0
5	3
6	6
7	10
8	15
9	24
A-R5:ASN-S1	
3	0
4	0
5	3
6	5
7	8
8	14
9	21
G-P:ARG-S1	
3	0
4	0
5	7
6	12
7	19
8	29
9	45
G-P:THR-CA	
3	0
4	0
5	5
6	9
7	14
8	22

9 33
U34-MY:VAL-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
FHU-P:ALA-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-P:HIS-S1
3 0
4 0
5 2
6 4
7 6
8 10
9 16
C-RIB:ARG-S2
3 0
4 0
5 4
6 7
7 12
8 19
9 29
U31-P:LEU-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-P:SER-S1
3 0
4 0
5 4
6 8
7 12
8 19
9 29
U-P:ASN-CA
3 0
4 0
5 1
6 3
7 4
8 7
9 11
U-RIB:SER-CA

3	0
4	0
5	2
6	4
7	6
8	10
9	16

GTP-RIB:ASN-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

A-R6:ARG-S1

3	0
4	0
5	5
6	9
7	15
8	24
9	36

QUO-M6:GLU-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

A-P:LEU-S1

3	0
4	0
5	7
6	12
7	19
8	31
9	47

U31-MY:GLU-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

C-RIB:MET-S1

3	0
4	0
5	1
6	2
7	4
8	7
9	10

IU-MY:ILE-S1

3	0
4	0

5 0
6 0
7 0
8 0
9 0

FHU-MY:PHE-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-P:CYS-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 5

G-R5:SER-CA

3 0
4 0
5 0
6 10
7 15
8 24
9 37

U31-P:ARG-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

H2U-MY:ALA-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U31-RIB:MET-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-P:LYS-S1

3 0
4 0
5 4
6 8

7	12
8	19
9	30
U-RIB:TRP-S1	
3	0
4	0
5	0
6	1
7	1
8	2
9	4
U-P:PHE-S1	
3	0
4	0
5	1
6	0
7	4
8	7
9	11
FHU-MY:LEU-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-Y:CYS-S1	
3	0
4	0
5	0
6	0
7	0
8	3
9	4
U-RIB:LYS-S2	
3	0
4	0
5	3
6	5
7	8
8	13
9	20
A-RIB:MET-S2	
3	0
4	0
5	2
6	3
7	5
8	8
9	13
A-R5:GLN-S1	
3	0
4	0
5	3
6	5
7	8
8	12

9 19
U31-MY:ALA-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-Y:ASP-S2
3 0
4 0
5 4
6 7
7 10
8 17
9 26
U-Y:TYR-CA
3 0
4 0
5 1
6 2
7 4
8 6
9 9
C-P:SER-S1
3 0
4 0
5 3
6 6
7 9
8 15
9 23
G-R6:CYS-S1
3 0
4 0
5 0
6 2
7 3
8 0
9 7
U31-MY:VAL-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
QUO-M6:LYS-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-P:ASN-S2

3	0
4	0
5	3
6	5
7	8
8	13
9	21

U31-RIB:GLN-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

IU-RIB:HIS-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

FHU-RIB:ILE-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

U-P:TYR-S1

3	0
4	0
5	0
6	2
7	4
8	6
9	9

FMU-P:GLN-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

C-Y:LYS-S1

3	0
4	0
5	4
6	8
7	12
8	19
9	30

C-RIB:PHE-CA

3	0
4	0

5 0
6 4
7 6
8 10
9 16

H2U-P:GLU-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-RIB:VAL-S1

3 0
4 0
5 6
6 10
7 16
8 26
9 39

H2U-RIB:LEU-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-P:ARG-CA

3 0
4 0
5 7
6 12
7 19
8 29
9 45

A-RIB:TYR-CA

3 0
4 0
5 2
6 4
7 7
8 11
9 17

U-P:VAL-S1

3 0
4 0
5 0
6 5
7 9
8 14
9 21

5BU-P:ILE-S1

3 0
4 0
5 0
6 0

7	0
8	0
9	0
U-RIB:PHE-S1	
3	0
4	0
5	1
6	3
7	4
8	7
9	11
G-RIB:MET-CA	
3	0
4	0
5	2
6	0
7	7
8	11
9	16
IU-RIB:HIS-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-Y:TRP-S2	
3	0
4	0
5	0
6	1
7	2
8	3
9	5
A-R5:VAL-S1	
3	0
4	0
5	6
6	10
7	16
8	26
9	39
A-P:MET-S1	
3	0
4	0
5	2
6	3
7	5
8	8
9	13
A-RIB:ARG-S1	
3	0
4	0
5	5
6	9
7	15
8	24

9 36
U-P:TYR-CA
3 0
4 0
5 0
6 2
7 4
8 6
9 9
U34-P:SER-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
FMU-RIB:ARG-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
FMU-RIB:ASN-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-R5:THR-CA
3 0
4 0
5 0
6 7
7 11
8 17
9 27
A-P:CYS-CA
3 0
4 0
5 0
6 1
7 2
8 3
9 5
DA-M5:ASN-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-RIB:LEU-S1

3	0
4	0
5	6
6	10
7	15
8	24
9	38

G-R5:PRO-S1

3	0
4	0
5	5
6	8
7	13
8	20
9	31

U-P:ASP-CA

3	0
4	0
5	2
6	4
7	7
8	11
9	18

FHU-P:LYS-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

5BU-RIB:ILE-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

G-P:GLU-S2

3	0
4	0
5	8
6	14
7	22
8	35
9	53

FHU-RIB:LEU-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

QUO-RIB:ASP-S1

3	0
4	0

5	0
6	0
7	0
8	0
9	0
C-P:TYR-S2	
3	0
4	0
5	2
6	3
7	5
8	9
9	14
A-R5:ASN-CA	
3	0
4	0
5	0
6	5
7	8
8	14
9	21
A-P:GLN-S2	
3	0
4	0
5	3
6	5
7	8
8	12
9	19
U-RIB:SER-S1	
3	0
4	0
5	2
6	4
7	6
8	10
9	16
A-P:ALA-S1	
3	0
4	0
5	7
6	12
7	18
8	29
9	44
FHU-MY:SER-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C31-P:THR-CA	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
A-RIB:ASN-S1	
3	0
4	0
5	3
6	5
7	8
8	14
9	21
A-R6:GLN-CA	
3	0
4	0
5	0
6	5
7	8
8	12
9	19
H2U-P:GLU-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R6:ILE-S1	
3	0
4	0
5	6
6	0
7	15
8	24
9	37
A-P:VAL-CA	
3	0
4	0
5	6
6	10
7	16
8	26
9	39
U-P:PHE-CA	
3	0
4	0
5	1
6	3
7	4
8	7
9	11
A-RIB:MET-CA	
3	0
4	0
5	2
6	3
7	5
8	8

9 13
G-R5:LYS-S2
3 0
4 0
5 7
6 12
7 19
8 30
9 46

A-R6:PHE-S1
3 0
4 0
5 3
6 0
7 8
8 13
9 20

DA-M5:GLU-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-P:LYS-S1
3 0
4 0
5 3
6 5
7 8
8 13
9 20

G-RIB:LEU-S1
3 0
4 0
5 9
6 16
7 24
8 39
9 59

U34-RIB:ASN-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0

C31-P:ASP-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0

U34-P:SER-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FMU-MY:ARG-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-P:TRP-S2

3 0
4 0
5 0
6 1
7 2
8 3
9 5

C31-RIB:ASP-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

GTP-M5:ALA-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-MY:ALA-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-R6:PHE-S2

3 0
4 0
5 3
6 5
7 8
8 13
9 20

U31-P:ALA-S1

3 0
4 0

5	0
6	0
7	0
8	0
9	0
U34-MY:SER-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
5BU-RIB:SER-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
H2U-MY:TRP-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-Y:TYR-S1	
3	0
4	0
5	1
6	0
7	4
8	6
9	9
QUO-RIB:LYS-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
H2U-MY:GLU-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R6:ARG-CA	
3	0
4	0
5	5
6	9

7	15
8	24
9	36
C31-RIB:ASP-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U31-MY:MET-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
DA-M6:GLU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FHU-RIB:LYS-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-M6:ASP-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R6:PHE-CA	
3	0
4	0
5	3
6	5
7	8
8	13
9	20
G-R5:TRP-S1	
3	0
4	0
5	0
6	2
7	3
8	5

9	9
U31-P:ASP-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-P:LYS-S1	
3	0
4	0
5	7
6	12
7	19
8	30
9	46
H2U-MY:TRP-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-M5:LEU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-Y:TYR-CA	
3	0
4	0
5	2
6	3
7	5
8	9
9	14
FHU-P:LEU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R6:ALA-CA	
3	0
4	0
5	7
6	12
7	18
8	29
9	44
U-P:PRO-CA	

3 0
4 0
5 2
6 3
7 5
8 9
9 13

A-P:ARG-CA

3 0
4 0
5 5
6 9
7 15
8 24
9 36

A-P:TYR-S2

3 0
4 0
5 2
6 4
7 7
8 11
9 17

G-R6:GLY-CA

3 0
4 0
5 7
6 13
7 20
8 31
9 48

QUO-M5:ARG-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-RIB:CYS-CA

3 0
4 0
5 0
6 0
7 0
8 2
9 3

U-P:ILE-S1

3 0
4 0
5 2
6 4
7 6
8 10
9 16

H2U-P:PHE-S1

3 0
4 0

5 0
6 0
7 0
8 0
9 0

G-R6:ASN-S1

3 0
4 0
5 4
6 7
7 11
8 17
9 26

H2U-RIB:ARG-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-RIB:TYR-CA

3 0
4 0
5 0
6 3
7 5
8 9
9 14

G-RIB:ARG-S1

3 0
4 0
5 7
6 12
7 19
8 30
9 46

FHU-P:THR-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-P:VAL-CA

3 0
4 0
5 0
6 5
7 9
8 14
9 21

DA-RIB:HIS-S2

3 0
4 0
5 0
6 0

7	0
8	0
9	0
C-Y:ASP-CA	
3	0
4	0
5	0
6	7
7	11
8	17
9	26
A-R6:TRP-S1	
3	0
4	0
5	1
6	1
7	3
8	0
9	7
GTP-RIB:GLY-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U31-MY:ASP-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FMU-MY:MET-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FHU-P:ASP-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-P:ARG-CA	
3	0
4	0
5	3
6	5
7	8
8	13

9 20
A-P:ASN-CA
3 0
4 0
5 3
6 5
7 8
8 14
9 21
DA-RIB:GLN-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U31-P:HIS-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
QUO-P:SER-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-R5:TYR-S2
3 0
4 0
5 2
6 4
7 7
8 11
9 17
C-Y:TYR-S2
3 0
4 0
5 2
6 3
7 5
8 9
9 14
DA-M5:ASN-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
DA-RIB:VAL-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-RIB:ALA-CA

3 0
4 0
5 5
6 9
7 14
8 23
9 35

C-P:PRO-CA

3 0
4 0
5 3
6 5
7 8
8 13
9 19

U-Y:ILE-CA

3 0
4 0
5 0
6 0
7 6
8 10
9 16

FHU-P:ARG-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-Y:ALA-CA

3 0
4 0
5 3
6 6
7 10
8 16
9 24

A-RIB:HIS-S1

3 0
4 0
5 2
6 3
7 5
8 8
9 13

G-P:CYS-S1

3 0
4 0

5	0
6	2
7	3
8	0
9	7
U-Y:GLU-S2	
3	0
4	0
5	3
6	6
7	9
8	15
9	23
A-R5:PRO-CA	
3	0
4	0
5	3
6	6
7	10
8	16
9	25
A-RIB:CYS-CA	
3	0
4	0
5	0
6	1
7	2
8	3
9	5
U34-P:HIS-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C31-P:THR-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
GTP-M6:SER-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R5:GLN-S2	
3	0
4	0
5	3
6	6

7 10
8 15
9 24

H2U-MY:LEU-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FMU-MY:PHE-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-R6:PHE-S2

3 0
4 0
5 0
6 6
7 10
8 16
9 25

OMC-P:LYS-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-RIB:MET-S2

3 0
4 0
5 1
6 2
7 4
8 7
9 10

A-RIB:GLY-CA

3 0
4 0
5 6
6 10
7 15
8 25
9 38

G-R5:TRP-CA

3 0
4 0
5 0
6 2
7 3
8 5

9 9
A-RIB:ASP-S2
3 0
4 0
5 5
6 8
7 13
8 21
9 32
5BU-MY:PRO-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-P:GLU-CA
3 0
4 0
5 5
6 9
7 14
8 22
9 34
G-R5:ASP-S2
3 0
4 0
5 6
6 11
7 17
8 26
9 40
QUO-RIB:ASN-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
FMU-MY:GLU-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
QUO-RIB:LEU-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
H2U-RIB:ARG-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

M2G-P:GLU-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-RIB:LEU-CA

3 0
4 0
5 9
6 16
7 24
8 39
9 59

A-P:THR-CA

3 0
4 0
5 4
6 7
7 11
8 17
9 27

U-Y:ASP-S1

3 0
4 0
5 2
6 4
7 7
8 11
9 18

C31-RIB:TYR-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-RIB:HIS-CA

3 0
4 0
5 1
6 2
7 4
8 6
9 10

G-RIB:ASP-S1

3 0
4 0

5	6
6	11
7	17
8	27
9	41
U31-MY:PHE-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-Y:ILE-S1	
3	0
4	0
5	2
6	4
7	6
8	10
9	16
U-RIB:GLU-S1	
3	0
4	0
5	3
6	6
7	10
8	15
9	24
U-P:HIS-S1	
3	0
4	0
5	0
6	1
7	3
8	4
9	7
A-P:PRO-S1	
3	0
4	0
5	3
6	6
7	10
8	16
9	25
A-R5:MET-CA	
3	0
4	0
5	2
6	3
7	5
8	8
9	13
H2U-P:PRO-S1	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
A-P:HIS-CA	
3	0
4	0
5	2
6	3
7	5
8	8
9	13
H2U-MY:ARG-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R6:PRO-CA	
3	0
4	0
5	5
6	8
7	13
8	20
9	31
U31-RIB:ASP-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-Y:MET-CA	
3	0
4	0
5	1
6	0
7	4
8	7
9	10
A-R6:LEU-CA	
3	0
4	0
5	7
6	12
7	19
8	31
9	47
FMU-MY:CYS-S1	
3	0
4	0
5	0
6	0
7	0
8	0

9 0
C-Y:LYS-S2
3 0
4 0
5 4
6 8
7 12
8 19
9 29
A-R6:HIS-CA
3 0
4 0
5 2
6 3
7 5
8 8
9 13
A-R6:ASP-CA
3 0
4 0
5 5
6 9
7 13
8 21
9 33
C-P:ASP-CA
3 0
4 0
5 4
6 7
7 11
8 17
9 26
C-RIB:ALA-S1
3 0
4 0
5 5
6 9
7 14
8 23
9 35
A-RIB:HIS-S2
3 0
4 0
5 2
6 3
7 5
8 8
9 13
FHU-MY:TYR-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
IU-P:SER-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

U34-RIB:GLY-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

A-RIB:THR-CA

3	0
4	0
5	4
6	7
7	11
8	17
9	27

C31-MY:GLU-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

C-RIB:LYS-CA

3	0
4	0
5	4
6	8
7	12
8	19
9	30

G-R6:SER-S1

3	0
4	0
5	5
6	10
7	15
8	24
9	37

C31-P:ASN-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

C-Y:ARG-CA

3	0
4	0

5	0
6	7
7	12
8	19
9	29
U-RIB:PRO-S1	
3	0
4	0
5	2
6	3
7	5
8	9
9	13
IU-RIB:LEU-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-RIB:HIS-CA	
3	0
4	0
5	1
6	1
7	3
8	4
9	7
C-RIB:GLU-CA	
3	0
4	0
5	5
6	9
7	14
8	23
9	35
A-P:PHE-CA	
3	0
4	0
5	0
6	5
7	8
8	13
9	20
G-RIB:LYS-S1	
3	0
4	0
5	7
6	12
7	19
8	31
9	47
U-P:ARG-S1	
3	0
4	0
5	3
6	5

7	8
8	13
9	20
C-P:GLY-CA	
3	0
4	0
5	4
6	8
7	12
8	20
9	30
C31-MY:GLN-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C31-MY:PHE-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
H2U-MY:PRO-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FHU-MY:PRO-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-RIB:CYS-S1	
3	0
4	0
5	0
6	1
7	2
8	3
9	5
H2U-RIB:GLU-CA	
3	0
4	0
5	0
6	0
7	0
8	0

9 0
IU-MY:VAL-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-P:VAL-S1
3 0
4 0
5 7
6 13
7 20
8 32
9 49
DA-RIB:ASP-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-P:PRO-CA
3 0
4 0
5 3
6 6
7 10
8 16
9 25
G-R5:SER-S1
3 0
4 0
5 5
6 10
7 15
8 24
9 37
FHU-P:VAL-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U34-P:HIS-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-P:MET-S2

3	0
4	0
5	0
6	2
7	3
8	4
9	7

G-RIB:LYS-S2

3	0
4	0
5	7
6	12
7	19
8	30
9	46

FHU-RIB:LYS-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

H2U-P:GLU-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

G-R6:PRO-S1

3	0
4	0
5	5
6	8
7	13
8	20
9	31

U-RIB:GLU-CA

3	0
4	0
5	3
6	6
7	10
8	15
9	24

U-Y:ASP-CA

3	0
4	0
5	0
6	4
7	7
8	12
9	18

DA-RIB:TYR-S1

3	0
4	0

5	0
6	0
7	0
8	0
9	0
C-Y:PHE-S2	
3	0
4	0
5	2
6	4
7	6
8	10
9	16
FMU-MY:MET-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-P:PHE-S1	
3	0
4	0
5	0
6	4
7	6
8	10
9	16
U-Y:PRO-S1	
3	0
4	0
5	2
6	3
7	5
8	9
9	13
U-Y:GLU-CA	
3	0
4	0
5	0
6	6
7	10
8	15
9	24
A-R5:TRP-CA	
3	0
4	0
5	0
6	1
7	3
8	4
9	7
FHU-MY:CYS-S1	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
U-P:CYS-S1	
3	0
4	0
5	0
6	0
7	1
8	2
9	3
IU-P:LEU-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U31-P:ASN-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
H2U-MY:PHE-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R5:VAL-S1	
3	0
4	0
5	7
6	13
7	20
8	32
9	49
DA-M6:LYS-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R5:MET-S2	
3	0
4	0
5	2
6	3
7	5
8	8

9 13
U31-RIB:GLN-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
IU-P:LYS-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-P:GLN-S1
3 0
4 0
5 1
6 2
7 4
8 7
9 10
A-R5:LYS-S1
3 0
4 0
5 6
6 10
7 15
8 24
9 37
QUO-M6:LEU-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-P:LYS-CA
3 0
4 0
5 4
6 8
7 12
8 19
9 30
I-P:TRP-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-P:LYS-CA

3 0
4 0
5 7
6 12
7 19
8 30
9 47

FMU-P:ARG-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-RIB:LYS-CA

3 0
4 0
5 7
6 12
7 19
8 31
9 47

G-RIB:MET-S1

3 0
4 0
5 0
6 4
7 7
8 11
9 16

FMU-MY:ILE-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

DA-RIB:GLN-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-MY:TYR-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

OMC-MY:LYS-S2

3 0
4 0

5	0
6	0
7	0
8	0
9	0
G-P:TYR-S2	
3	0
4	0
5	3
6	5
7	9
8	14
9	21
A-P:ASP-S2	
3	0
4	0
5	5
6	8
7	13
8	21
9	32
U-Y:THR-CA	
3	0
4	0
5	2
6	4
7	6
8	9
9	14
FMU-MY:VAL-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C31-P:GLU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-RIB:LYS-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R5:GLU-S2	
3	0
4	0
5	6
6	11

7	18
8	28
9	43
U31-RIB:TYR-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U31-MY:GLN-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-P:SER-S1	
3	0
4	0
5	5
6	10
7	15
8	24
9	37
C-RIB:ARG-S1	
3	0
4	0
5	4
6	7
7	12
8	19
9	29
DA-M5:MET-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C31-RIB:LEU-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-RIB:GLU-S1	
3	0
4	0
5	5
6	9
7	14
8	22

9 35
U-RIB:HIS-S1
3 0
4 0
5 1
6 1
7 3
8 4
9 7

G-R5:GLN-S1
3 0
4 0
5 3
6 6
7 10
8 16
9 24

IU-MY:GLU-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0

IU-MY:ARG-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-R6:PRO-S1
3 0
4 0
5 3
6 6
7 10
8 16
9 25

C31-P:ALA-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0

IU-RIB:ALA-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-P:THR-S1

3	0
4	0
5	4
6	7
7	11
8	17
9	27

A-R5:ARG-S1

3	0
4	0
5	5
6	9
7	15
8	24
9	36

GTP-RIB:ASN-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

DA-M5:GLU-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

U31-P:LEU-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

U-RIB:VAL-S1

3	0
4	0
5	3
6	5
7	9
8	14
9	21

C-RIB:VAL-CA

3	0
4	0
5	5
6	8
7	13
8	20
9	31

C-RIB:ILE-S1

3	0
4	0

5	3
6	6
7	10
8	15
9	24
A-R6:CYS-S1	
3	0
4	0
5	0
6	1
7	2
8	3
9	0
DA-M5:HIS-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FHU-P:TYR-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R6:LEU-CA	
3	0
4	0
5	9
6	16
7	24
8	39
9	59
A-R5:ASP-S1	
3	0
4	0
5	5
6	9
7	13
8	21
9	33
H2U-P:PRO-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
DA-M6:LEU-S1	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
GTP-M5:SER-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-Y:SER-S1	
3	0
4	0
5	3
6	6
7	9
8	15
9	23
C-Y:MET-S1	
3	0
4	0
5	1
6	2
7	4
8	7
9	10
G-R5:THR-CA	
3	0
4	0
5	0
6	9
7	14
8	22
9	34
A-P:ARG-S1	
3	0
4	0
5	5
6	9
7	15
8	24
9	36
A-R5:LYS-CA	
3	0
4	0
5	0
6	10
7	15
8	24
9	37
U-P:GLU-S2	
3	0
4	0
5	0
6	6
7	9
8	15

9 23
C31-P:SER-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
DA-M6:ASN-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-Y:PHE-S2
3 0
4 0
5 1
6 3
7 4
8 7
9 11
FHU-P:SER-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-RIB:VAL-S1
3 0
4 0
5 7
6 13
7 20
8 32
9 49
C-Y:TYR-S1
3 0
4 0
5 2
6 3
7 5
8 9
9 14
OMC-P:LYS-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-RIB:THR-S1

3 0
4 0
5 5
6 9
7 14
8 22
9 34

G-R5:CYS-CA

3 0
4 0
5 0
6 0
7 0
8 4
9 7

FMU-RIB:PHE-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U34-MY:PHE-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

DA-M6:ASN-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-RIB:THR-S1

3 0
4 0
5 3
6 5
7 9
8 14
9 21

FHU-P:LEU-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-R6:LYS-CA

3 0
4 0

5 7
6 12
7 19
8 31
9 47

H2U-MY:THR-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-Y:LYS-S2

3 0
4 0
5 0
6 5
7 8
8 13
9 20

FMU-MY:PHE-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-P:VAL-CA

3 0
4 0
5 5
6 8
7 13
8 20
9 31

DA-M6:GLU-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-P:PHE-CA

3 0
4 0
5 0
6 0
7 6
8 10
9 16

H2U-P:ARG-S2

3 0
4 0
5 0
6 0

7	0
8	0
9	0
U-Y:GLN-S2	
3	0
4	0
5	1
6	2
7	4
8	6
9	10
G-P:ILE-CA	
3	0
4	0
5	5
6	0
7	15
8	24
9	37
C-RIB:ILE-CA	
3	0
4	0
5	0
6	6
7	10
8	15
9	24
DA-M5:TYR-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R5:ALA-CA	
3	0
4	0
5	7
6	12
7	18
8	29
9	44
FHU-P:TYR-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
IU-P:LYS-CA	
3	0
4	0
5	0
6	0
7	0
8	0

9 0
IU-P:ALA-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
H2U-MY:ASN-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-P:ASN-S1
3 0
4 0
5 1
6 3
7 4
8 7
9 11
C31-P:MET-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-Y:LEU-S1
3 0
4 0
5 0
6 7
7 10
8 17
9 26
U31-MY:PHE-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
IU-P:ILE-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-RIB:TRP-S1

3 0
4 0
5 1
6 2
7 3
8 5
9 9

A-R5:LEU-S1

3 0
4 0
5 0
6 12
7 19
8 31
9 47

G-P:ASN-S1

3 0
4 0
5 4
6 7
7 11
8 17
9 26

FMU-MY:VAL-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-R6:TYR-CA

3 0
4 0
5 2
6 4
7 7
8 11
9 17

G-R6:GLU-S1

3 0
4 0
5 0
6 14
7 22
8 36
9 54

GTP-M5:GLY-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

IU-RIB:ARG-S1

3 0
4 0

5	0
6	0
7	0
8	0
9	0
G-R5:HIS-CA	
3	0
4	0
5	2
6	4
7	6
8	10
9	16
H2U-MY:PRO-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C31-MY:LEU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FHU-RIB:ASP-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-P:TRP-S2	
3	0
4	0
5	0
6	1
7	1
8	2
9	3
C31-MY:GLU-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
DA-M6:LYS-S2	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
5BU-P:ARG-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FMU-MY:GLN-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-RIB:PRO-CA	
3	0
4	0
5	3
6	6
7	10
8	16
9	25
QUO-RIB:LEU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-P:MET-CA	
3	0
4	0
5	2
6	3
7	5
8	8
9	13
A-RIB:LYS-CA	
3	0
4	0
5	6
6	10
7	15
8	24
9	37
U31-RIB:ASN-S1	
3	0
4	0
5	0
6	0
7	0
8	0

9 0
FMU-P:PHE-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C31-RIB:PHE-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-RIB:ARG-S2
3 0
4 0
5 5
6 9
7 15
8 23
9 36
U-RIB:LEU-CA
3 0
4 0
5 4
6 7
7 10
8 17
9 26
A-R5:ASP-CA
3 0
4 0
5 5
6 9
7 13
8 21
9 33
G-RIB:ASP-S2
3 0
4 0
5 6
6 11
7 17
8 26
9 40
A-R6:ASN-S2
3 0
4 0
5 3
6 5
7 8
8 13
9 21
A-R6:LYS-CA

3 0
4 0
5 6
6 10
7 15
8 24
9 37

G-R6:TYR-CA

3 0
4 0
5 0
6 6
7 9
8 14
9 22

C-RIB:ASN-S1

3 0
4 0
5 2
6 4
7 7
8 11
9 17

G-RIB:ARG-CA

3 0
4 0
5 7
6 12
7 19
8 30
9 46

C31-P:PHE-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-R6:ASP-CA

3 0
4 0
5 0
6 11
7 17
8 27
9 41

GTP-RIB:SER-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-R5:CYS-S1

3 0
4 0

5	0
6	0
7	3
8	4
9	7
C31-RIB:GLU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-P:PHE-S2	
3	0
4	0
5	0
6	6
7	10
8	16
9	25
G-R5:LEU-S1	
3	0
4	0
5	9
6	16
7	24
8	39
9	59
G-P:ASP-S2	
3	0
4	0
5	6
6	10
7	16
8	26
9	40
G-R5:TYR-CA	
3	0
4	0
5	3
6	0
7	9
8	14
9	22
FHU-MY:VAL-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FMU-RIB:ASP-S2	
3	0
4	0
5	0
6	0

7 0
8 0
9 0

FMU-MY:MET-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-MY:ASP-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FMU-RIB:CYS-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-Y:ASN-S2

3 0
4 0
5 1
6 3
7 4
8 7
9 11

G-P:ASP-S1

3 0
4 0
5 6
6 11
7 17
8 27
9 41

G-P:GLY-CA

3 0
4 0
5 7
6 12
7 19
8 31
9 47

G-RIB:ILE-CA

3 0
4 0
5 6
6 10
7 15
8 24

9 37
H2U-RIB:PRO-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
FMU-MY:SER-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-R5:HIS-S1
3 0
4 0
5 2
6 4
7 6
8 10
9 16
A-R6:ILE-CA
3 0
4 0
5 4
6 8
7 12
8 19
9 30
G-RIB:SER-CA
3 0
4 0
5 5
6 10
7 15
8 24
9 37
G-R6:THR-CA
3 0
4 0
5 0
6 9
7 14
8 22
9 34
A-P:LEU-S2
3 0
4 0
5 7
6 12
7 19
8 31
9 47
FHU-RIB:LEU-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

H2U-P:ASN-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

QUO-M6:LEU-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U31-P:SER-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C31-P:ASN-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-P:MET-S2

3 0
4 0
5 2
6 3
7 5
8 8
9 13

H2U-RIB:TRP-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

IU-P:LYS-S2

3 0
4 0

5	0
6	0
7	0
8	0
9	0
GTP-RIB:ASN-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R6:LYS-S1	
3	0
4	0
5	7
6	12
7	19
8	31
9	47
GTP-RIB:ARG-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-RIB:GLY-CA	
3	0
4	0
5	3
6	5
7	8
8	13
9	21
C31-P:MET-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-Y:LEU-S1	
3	0
4	0
5	6
6	10
7	15
8	24
9	38
G-R6:TYR-S1	
3	0
4	0
5	3
6	6

7	9
8	14
9	22
U-P:TRP-CA	
3	0
4	0
5	0
6	1
7	1
8	2
9	3
C31-P:PHE-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FHU-RIB:ALA-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-Y:ARG-S1	
3	0
4	0
5	4
6	7
7	12
8	19
9	29
G-P:TYR-CA	
3	0
4	0
5	3
6	5
7	9
8	14
9	21
FMU-RIB:GLU-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U31-RIB:TYR-S1	
3	0
4	0
5	0
6	0
7	0
8	0

9 0
U-RIB:TYR-S2
3 0
4 0
5 1
6 2
7 4
8 6
9 9
G-RIB:ASN-CA
3 0
4 0
5 4
6 7
7 11
8 17
9 26
DA-RIB:ASP-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-RIB:LEU-S1
3 0
4 0
5 4
6 7
7 10
8 17
9 26
QUO-RIB:GLN-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
FHU-MY:ILE-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-R5:ARG-S2
3 0
4 0
5 5
6 9
7 15
8 23
9 36
U-RIB:TRP-CA

3	0
4	0
5	0
6	1
7	1
8	2
9	4

QUO-M5:GLN-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

H2U-P:THR-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

A-R6:ARG-S2

3	0
4	0
5	5
6	9
7	15
8	23
9	36

A-RIB:GLN-CA

3	0
4	0
5	3
6	5
7	8
8	12
9	19

IU-MY:LEU-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

G-RIB:TYR-S2

3	0
4	0
5	0
6	6
7	9
8	14
9	22

H2U-MY:THR-S1

3	0
4	0

5	0
6	0
7	0
8	0
9	0

IU-RIB:SER-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

G-R5:ASN-S1

3	0
4	0
5	4
6	7
7	11
8	17
9	26

G-R6:HIS-S1

3	0
4	0
5	2
6	4
7	6
8	10
9	16

FHU-RIB:PRO-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

DA-M5:HIS-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

A-P:LYS-S2

3	0
4	0
5	5
6	10
7	15
8	24
9	37

FHU-MY:TYR-S2

3	0
4	0
5	0
6	0

7	0
8	0
9	0
U34-MY:ASP-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R5:ASP-S2	
3	0
4	0
5	5
6	8
7	13
8	21
9	32
C-P:ASP-S1	
3	0
4	0
5	4
6	7
7	11
8	17
9	26
DA-M6:HIS-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
DA-M6:LEU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-P:TRP-S2	
3	0
4	0
5	0
6	2
7	3
8	5
9	9
A-R6:TYR-S1	
3	0
4	0
5	2
6	4
7	7
8	11

9 17
DA-M6:TYR-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
FHU-RIB:TYR-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-R5:ASN-S2
3 0
4 0
5 4
6 7
7 11
8 17
9 26
FHU-RIB:GLY-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C31-P:GLU-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-R5:GLN-CA
3 0
4 0
5 0
6 0
7 10
8 16
9 24
FHU-RIB:ALA-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-Y:ASN-CA

3 0
4 0
5 2
6 4
7 7
8 11
9 17

U-Y:ASN-S1

3 0
4 0
5 1
6 3
7 4
8 7
9 11

C-P:ARG-CA

3 0
4 0
5 4
6 7
7 12
8 19
9 29

A-R6:VAL-S1

3 0
4 0
5 6
6 10
7 16
8 26
9 39

5BU-MY:ILE-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

QUO-M5:ASN-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-P:GLU-S1

3 0
4 0
5 8
6 14
7 22
8 35
9 54

A-R6:THR-CA

3 0
4 0

5	4
6	7
7	11
8	17
9	27
G-R5:ILE-S1	
3	0
4	0
5	6
6	10
7	0
8	24
9	37
A-R6:SER-S1	
3	0
4	0
5	4
6	8
7	12
8	19
9	29
U-Y:LYS-S1	
3	0
4	0
5	3
6	5
7	8
8	13
9	20
U-Y:MET-CA	
3	0
4	0
5	1
6	2
7	3
8	4
9	7
C-RIB:GLY-CA	
3	0
4	0
5	4
6	8
7	12
8	20
9	30
DA-M6:ASN-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U31-MY:TYR-S1	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
A-R5:GLN-S2	
3	0
4	0
5	3
6	5
7	8
8	12
9	19
FHU-P:CYS-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-Y:ARG-S1	
3	0
4	0
5	3
6	5
7	8
8	13
9	20
C-Y:GLY-CA	
3	0
4	0
5	4
6	8
7	12
8	20
9	30
OMC-P:LYS-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C31-MY:PHE-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-RIB:ASN-CA	
3	0
4	0
5	2
6	4
7	7
8	11

9 17
A-R5:PHE-S2
3 0
4 0
5 3
6 5
7 8
8 13
9 20
A-R6:VAL-CA
3 0
4 0
5 6
6 10
7 16
8 26
9 39
U-RIB:PHE-S2
3 0
4 0
5 1
6 3
7 4
8 7
9 11
U34-MY:PRO-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-Y:MET-S2
3 0
4 0
5 1
6 2
7 4
8 7
9 10
G-R5:TYR-S1
3 0
4 0
5 0
6 6
7 9
8 14
9 22
QUO-M5:PHE-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
DA-RIB:ALA-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-RIB:THR-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FMU-MY:ASN-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U31-P:ASN-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-P:THR-S1

3 0
4 0
5 2
6 4
7 6
8 9
9 14

H2U-MY:GLN-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-RIB:CYS-S1

3 0
4 0
5 0
6 0
7 3
8 0
9 7

H2U-P:ARG-S1

3 0
4 0

5	0
6	0
7	0
8	0
9	0
U-Y:PHE-S1	
3	0
4	0
5	1
6	3
7	4
8	7
9	11
FHU-MY:ARG-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-RIB:THR-S1	
3	0
4	0
5	4
6	7
7	11
8	17
9	27
C31-P:TYR-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R6:THR-S1	
3	0
4	0
5	0
6	9
7	14
8	22
9	34
IU-RIB:PRO-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
H2U-P:ASN-CA	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
C-P:TYR-CA	
3	0
4	0
5	2
6	0
7	5
8	9
9	14
C31-P:ASN-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-Y:TRP-S1	
3	0
4	0
5	0
6	1
7	1
8	2
9	4
C31-MY:TYR-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FHU-P:LYS-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R5:MET-S1	
3	0
4	0
5	2
6	3
7	5
8	8
9	13
G-R6:LYS-S2	
3	0
4	0
5	7
6	12
7	19
8	30

9 46
A-R6:ILE-S1
3 0
4 0
5 4
6 8
7 12
8 19
9 30
A-R6:GLU-CA
3 0
4 0
5 7
6 11
7 18
8 28
9 43
U31-MY:TYR-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
FMU-RIB:MET-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-Y:CYS-S1
3 0
4 0
5 0
6 0
7 0
8 2
9 3
H2U-MY:LYS-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U31-P:MET-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
FMU-MY:GLU-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

IU-P:HIS-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

H2U-P:LEU-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-P:TYR-CA

3 0
4 0
5 2
6 4
7 7
8 11
9 17

QUO-M6:ASN-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-Y:LEU-CA

3 0
4 0
5 0
6 0
7 10
8 17
9 26

G-RIB:PRO-CA

3 0
4 0
5 5
6 8
7 13
8 20
9 31

A-R5:GLU-S1

3 0
4 0

5	6
6	11
7	18
8	28
9	43
A-RIB:TYR-S2	
3	0
4	0
5	2
6	4
7	7
8	11
9	17
H2U-P:THR-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-P:GLN-S2	
3	0
4	0
5	1
6	2
7	4
8	6
9	10
C-P:ASN-S2	
3	0
4	0
5	2
6	4
7	7
8	11
9	16
G-R5:GLU-S2	
3	0
4	0
5	8
6	14
7	22
8	35
9	54
G-R6:GLN-S1	
3	0
4	0
5	0
6	6
7	10
8	16
9	24
A-RIB:PHE-S2	
3	0
4	0
5	3
6	5

7	8
8	13
9	20
DA-RIB:ALA-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R5:TYR-CA	
3	0
4	0
5	0
6	4
7	7
8	11
9	17
A-R5:LEU-S2	
3	0
4	0
5	7
6	12
7	19
8	31
9	47
U31-RIB:PHE-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
H2U-MY:GLY-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
PSU-RIB:ARG-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-P:HIS-S2	
3	0
4	0
5	2
6	4
7	6
8	10

9 16
C-P:LYS-S2
3 0
4 0
5 4
6 8
7 12
8 19
9 29
C-P:GLN-S1
3 0
4 0
5 2
6 4
7 6
8 10
9 15
U-P:GLU-CA
3 0
4 0
5 3
6 6
7 10
8 15
9 24
A-RIB:GLN-S1
3 0
4 0
5 0
6 5
7 8
8 12
9 19
IU-P:ARG-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-RIB:TYR-CA
3 0
4 0
5 1
6 2
7 4
8 6
9 9
IU-MY:HIS-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
DA-M5:TYR-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-R6:THR-S1

3 0
4 0
5 4
6 7
7 11
8 17
9 27

C-Y:ASP-S1

3 0
4 0
5 4
6 7
7 11
8 17
9 26

FMU-P:PHE-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

H2U-RIB:LYS-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-RIB:ASN-S2

3 0
4 0
5 1
6 3
7 4
8 7
9 11

G-P:CYS-CA

3 0
4 0
5 0
6 0
7 0
8 4
9 7

QUO-M6:LEU-S2

3 0
4 0

5	0
6	0
7	0
8	0
9	0
C-RIB:PHE-S2	
3	0
4	0
5	2
6	4
7	6
8	10
9	16
C-Y:ASN-S1	
3	0
4	0
5	2
6	4
7	7
8	11
9	17
DA-RIB:LYS-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FMU-MY:GLN-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
DA-M6:MET-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-P:GLU-CA	
3	0
4	0
5	8
6	14
7	22
8	35
9	54
H2U-RIB:PRO-S1	
3	0
4	0
5	0
6	0

7 0
8 0
9 0

QUO-M5:ASN-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-P:MET-S1

3 0
4 0
5 2
6 4
7 6
8 10
9 16

U31-MY:GLU-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-RIB:ILE-S1

3 0
4 0
5 4
6 8
7 12
8 19
9 30

5BU-RIB:PRO-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-Y:HIS-S1

3 0
4 0
5 1
6 1
7 3
8 4
9 7

U31-RIB:MET-S1

3 0
4 0
5 0
6 0
7 0
8 0

9 0
H2U-RIB:LYS-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-RIB:VAL-CA
3 0
4 0
5 7
6 13
7 20
8 32
9 50
FHU-MY:LEU-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U34-MY:ASN-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-RIB:MET-S1
3 0
4 0
5 0
6 3
7 5
8 8
9 13
G-RIB:GLY-CA
3 0
4 0
5 7
6 13
7 20
8 31
9 48
DA-M5:LEU-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U34-RIB:SER-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-RIB:MET-S1

3 0
4 0
5 1
6 2
7 3
8 4
9 7

5BU-P:ALA-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U34-P:HIS-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C31-MY:ALA-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-P:MET-S2

3 0
4 0
5 1
6 2
7 4
8 7
9 10

U-RIB:LEU-S2

3 0
4 0
5 4
6 7
7 10
8 17
9 26

U34-P:GLU-CA

3 0
4 0

5	0
6	0
7	0
8	0
9	0
U-Y:VAL-CA	
3	0
4	0
5	0
6	5
7	9
8	14
9	21
H2U-RIB:ASN-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-P:ALA-S1	
3	0
4	0
5	5
6	9
7	14
8	23
9	35
C-Y:TRP-S1	
3	0
4	0
5	0
6	1
7	2
8	3
9	5
DA-M5:ASP-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FMU-MY:ALA-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U31-P:GLN-CA	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
G-R5:MET-S1	
3	0
4	0
5	0
6	4
7	7
8	11
9	16
H2U-RIB:GLY-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
IU-P:HIS-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-P:PHE-S2	
3	0
4	0
5	0
6	3
7	4
8	7
9	11
C31-RIB:SER-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-P:LEU-S1	
3	0
4	0
5	9
6	16
7	24
8	38
9	59
G-P:ASN-S2	
3	0
4	0
5	4
6	7
7	11
8	17

9 26
FHU-RIB:TYR-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C31-MY:GLU-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
DA-RIB:ASN-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-P:MET-CA
3 0
4 0
5 2
6 4
7 6
8 10
9 16
C-Y:VAL-CA
3 0
4 0
5 5
6 8
7 13
8 20
9 31
C-Y:PRO-S1
3 0
4 0
5 3
6 5
7 8
8 13
9 20
U31-P:MET-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-Y:HIS-CA

3 0
4 0
5 0
6 1
7 3
8 4
9 7

IU-P:ARG-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-R5:PHE-CA

3 0
4 0
5 0
6 0
7 10
8 16
9 25

A-R6:ASN-S1

3 0
4 0
5 3
6 5
7 8
8 14
9 21

G-P:SER-CA

3 0
4 0
5 5
6 10
7 15
8 24
9 37

FMU-RIB:ALA-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FMU-MY:GLU-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FMU-P:VAL-S1

3 0
4 0

5	0
6	0
7	0
8	0
9	0
A-RIB:SER-CA	
3	0
4	0
5	4
6	8
7	12
8	19
9	29
G-RIB:ASN-S1	
3	0
4	0
5	4
6	7
7	11
8	17
9	26
FMU-P:CYS-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
DA-M6:GLN-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-P:ARG-S2	
3	0
4	0
5	7
6	12
7	18
8	29
9	45
C-P:ASN-CA	
3	0
4	0
5	2
6	4
7	7
8	11
9	17
IU-RIB:ILE-S1	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
IU-RIB:LYS-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-RIB:TYR-S1	
3	0
4	0
5	3
6	6
7	9
8	14
9	22
U-RIB:ILE-S1	
3	0
4	0
5	2
6	4
7	6
8	10
9	16
QUO-P:LEU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
GTP-M6:GLY-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-M5:PHE-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-P:PHE-S1	
3	0
4	0
5	3
6	5
7	8
8	13

9 20
G-R6:PHE-CA
3 0
4 0
5 0
6 6
7 10
8 16
9 25
DA-M6:TYR-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
H2U-MY:PHE-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-P:SER-CA
3 0
4 0
5 4
6 8
7 12
8 19
9 29
C-Y:TRP-CA
3 0
4 0
5 0
6 1
7 2
8 3
9 5
QUO-M5:ASP-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-RIB:CYS-CA
3 0
4 0
5 1
6 0
7 3
8 4
9 7
U31-MY:ASP-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-Y:TYR-S2

3 0
4 0
5 1
6 2
7 4
8 6
9 9

QUO-M5:ASN-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

DA-RIB:HIS-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U31-RIB:ASP-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-P:ARG-S2

3 0
4 0
5 5
6 9
7 15
8 23
9 36

U34-P:ASN-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

QUO-M5:ASP-CA

3 0
4 0

5	0
6	0
7	0
8	0
9	0
U-P:SER-CA	
3	0
4	0
5	2
6	4
7	6
8	10
9	16
GTP-M6:ASN-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U31-RIB:MET-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U31-MY:MET-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-P:THR-CA	
3	0
4	0
5	2
6	4
7	6
8	9
9	14
IU-P:ARG-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-M5:GLU-S1	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
G-R6:SER-CA	
3	0
4	0
5	5
6	10
7	15
8	24
9	37
G-P:PRO-CA	
3	0
4	0
5	4
6	8
7	12
8	20
9	31
IU-MY:SER-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-M5:ARG-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R6:MET-S2	
3	0
4	0
5	2
6	3
7	5
8	8
9	13
C-RIB:HIS-S2	
3	0
4	0
5	1
6	2
7	4
8	6
9	10
A-RIB:TYR-S1	
3	0
4	0
5	2
6	4
7	7
8	11

9 17
U31-MY:GLU-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-P:MET-CA
3 0
4 0
5 1
6 2
7 4
8 7
9 10
A-RIB:PHE-S1
3 0
4 0
5 3
6 5
7 8
8 13
9 20
A-R5:PHE-S1
3 0
4 0
5 3
6 5
7 8
8 13
9 20
G-RIB:PRO-S1
3 0
4 0
5 5
6 8
7 13
8 20
9 31
FMU-P:ASP-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C31-MY:SER-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-P:LEU-CA

3 0
4 0
5 0
6 7
7 10
8 17
9 26

A-RIB:ASP-S1

3 0
4 0
5 5
6 9
7 13
8 21
9 33

C-P:GLU-S2

3 0
4 0
5 0
6 9
7 14
8 22
9 34

U31-MY:THR-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-Y:CYS-CA

3 0
4 0
5 0
6 1
7 0
8 0
9 4

C-P:ALA-CA

3 0
4 0
5 5
6 9
7 14
8 23
9 35

H2U-RIB:PHE-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-P:CYS-CA

3 0
4 0

5	0
6	0
7	0
8	2
9	3
M2G-P:GLU-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U34-MY:ASP-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
DA-M5:HIS-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
DA-M5:LEU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U31-P:GLN-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-P:LYS-CA	
3	0
4	0
5	6
6	10
7	15
8	24
9	37
G-R6:MET-S2	
3	0
4	0
5	2
6	4

7	7
8	11
9	16
DA-RIB:MET-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R5:ASN-S2	
3	0
4	0
5	3
6	5
7	8
8	13
9	21
IU-P:SER-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-M6:GLN-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
5BU-P:SER-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-RIB:GLU-S2	
3	0
4	0
5	8
6	14
7	22
8	35
9	54
U-Y:MET-S2	
3	0
4	0
5	1
6	2
7	3
8	4

9 7
H2U-MY:LYS-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
FMU-RIB:MET-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-R6:ARG-S1
3 0
4 0
5 7
6 12
7 19
8 30
9 46
FMU-RIB:ARG-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-RIB:LEU-S2
3 0
4 0
5 6
6 10
7 15
8 24
9 37
U31-RIB:ASP-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-RIB:HIS-CA
3 0
4 0
5 2
6 3
7 5
8 8
9 13
FHU-MY:THR-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-P:ASP-CA

3 0
4 0
5 6
6 11
7 17
8 27
9 41

IU-RIB:LYS-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-P:ALA-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-P:GLN-S1

3 0
4 0
5 3
6 6
7 10
8 15
9 24

FMU-MY:PRO-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U34-RIB:TYR-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-RIB:LYS-S1

3 0
4 0

5	4
6	8
7	12
8	19
9	30
QUO-P:ASN-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C31-RIB:GLU-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-RIB:LEU-S2	
3	0
4	0
5	7
6	12
7	19
8	31
9	47
G-P:PHE-S1	
3	0
4	0
5	4
6	6
7	10
8	16
9	25
G-RIB:THR-CA	
3	0
4	0
5	5
6	9
7	14
8	22
9	34
A-RIB:ASP-CA	
3	0
4	0
5	5
6	9
7	13
8	21
9	33
OMC-RIB:LYS-S1	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
C-Y:GLU-CA	
3	0
4	0
5	5
6	9
7	14
8	23
9	35
A-R6:MET-CA	
3	0
4	0
5	2
6	3
7	5
8	8
9	13
U34-MY:ASN-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-RIB:TYR-CA	
3	0
4	0
5	0
6	6
7	9
8	14
9	22
A-RIB:ASN-CA	
3	0
4	0
5	3
6	5
7	8
8	14
9	21
FMU-P:ALA-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R5:ALA-CA	
3	0
4	1
5	8
6	15
7	23
8	36

9 56
FHU-MY:LEU-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-RIB:HIS-S2
3 0
4 0
5 2
6 4
7 6
8 10
9 16
U-P:HIS-S2
3 0
4 0
5 1
6 1
7 2
8 4
9 7
C-P:SER-CA
3 0
4 0
5 3
6 6
7 9
8 15
9 23
GTP-RIB:THR-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-R6:TRP-S1
3 0
4 0
5 1
6 0
7 3
8 5
9 9
FHU-MY:ARG-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-RIB:PHE-S1

3 0
4 0
5 2
6 4
7 6
8 10
9 16

A-P:HIS-S1

3 0
4 0
5 2
6 3
7 5
8 8
9 13

U-Y:ALA-S1

3 0
4 0
5 3
6 6
7 10
8 16
9 24

A-R5:GLY-CA

3 0
4 0
5 6
6 10
7 15
8 25
9 38

C-P:ARG-S1

3 0
4 0
5 4
6 7
7 12
8 19
9 29

DA-RIB:HIS-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FMU-MY:ARG-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

I-RIB:TRP-S2

3 0
4 0

5	0
6	0
7	0
8	0
9	0
A-R6:HIS-S2	
3	0
4	0
5	2
6	3
7	5
8	8
9	13
A-R6:ASP-S2	
3	0
4	0
5	5
6	8
7	13
8	21
9	32
GTP-M5:ALA-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
IU-RIB:HIS-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R5:MET-S2	
3	0
4	0
5	2
6	4
7	7
8	11
9	16
FHU-MY:ALA-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
I-RIB:GLY-CA	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
C-RIB:ASP-CA	
3	0
4	0
5	4
6	7
7	11
8	17
9	26
G-R6:MET-CA	
3	0
4	0
5	2
6	4
7	7
8	11
9	16
G-R6:TYR-S2	
3	0
4	0
5	3
6	6
7	9
8	14
9	22
U31-MY:ASP-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-P:ARG-S2	
3	0
4	0
5	3
6	5
7	8
8	13
9	20
A-R6:GLN-S2	
3	0
4	0
5	3
6	5
7	8
8	12
9	19
U-P:ASP-S1	
3	0
4	0
5	2
6	4
7	7
8	11

9 18
A-P:LEU-CA
3 0
4 0
5 7
6 12
7 19
8 31
9 47
C-RIB:MET-CA
3 0
4 0
5 1
6 2
7 4
8 7
9 10
A-P:GLU-S1
3 0
4 0
5 6
6 11
7 18
8 28
9 43
FHU-RIB:ARG-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
QUO-M6:ARG-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-P:MET-S1
3 0
4 0
5 1
6 2
7 4
8 7
9 10
U31-P:MET-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
OMC-RIB:LYS-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

C-P:ILE-S1

3	0
4	0
5	3
6	6
7	9
8	15
9	23

C-Y:SER-CA

3	0
4	0
5	3
6	6
7	9
8	15
9	23

FHU-MY:SER-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

U31-MY:MET-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

G-R6:ILE-CA

3	0
4	0
5	0
6	10
7	15
8	24
9	37

C31-MY:THR-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

C31-MY:GLN-S2

3	0
4	0

5	0
6	0
7	0
8	0
9	0
G-R5:ILE-CA	
3	0
4	0
5	0
6	10
7	0
8	24
9	37
IU-MY:ALA-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
IU-RIB:SER-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R5:ALA-S1	
3	0
4	1
5	8
6	15
7	23
8	36
9	56
H2U-P:ASN-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
IU-MY:ARG-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-RIB:HIS-CA	
3	0
4	0
5	2
6	4

7	6
8	10
9	16
C31-P:TYR-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
IU-MY:ILE-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R6:LEU-S2	
3	0
4	1
5	9
6	16
7	24
8	39
9	59
C-RIB:VAL-S1	
3	0
4	0
5	5
6	8
7	13
8	20
9	31
U31-RIB:ASN-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FMU-P:ARG-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R5:GLU-CA	
3	0
4	0
5	8
6	0
7	22
8	36

9 55
G-RIB:TRP-CA
3 0
4 0
5 1
6 2
7 3
8 5
9 9
QUO-M5:ASP-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-P:THR-S1
3 0
4 0
5 5
6 9
7 14
8 22
9 33
G-R6:VAL-CA
3 0
4 0
5 0
6 13
7 20
8 32
9 50
G-R6:ALA-CA
3 0
4 0
5 8
6 15
7 23
8 36
9 56
DA-RIB:ARG-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U31-MY:ILE-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-RIB:ASP-S1

3	0
4	0
5	4
6	7
7	11
8	17
9	26
C-Y:HIS-S2	
3	0
4	0
5	0
6	2
7	4
8	6
9	10
C31-MY:ALA-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
5BU-P:ARG-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
IU-P:LEU-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
H2U-MY:GLN-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-Y:LEU-S2	
3	0
4	0
5	6
6	10
7	15
8	24
9	37
H2U-P:LYS-S2	
3	0
4	0

5	0
6	0
7	0
8	0
9	0
U34-P:GLU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-Y:GLU-S1	
3	0
4	0
5	5
6	9
7	14
8	22
9	35
IU-MY:ALA-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
H2U-P:TRP-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
IU-MY:ARG-CA	
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4	0
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6	0
7	0
8	0
9	0
I-RIB:ALA-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U34-P:ARG-S2	
3	0
4	0
5	0
6	0

7 0
8 0
9 0
C31-P:GLN-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-P:ASP-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

IU-RIB:ARG-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-Y:GLN-S2

3 0
4 0
5 2
6 4
7 6
8 10
9 15

FHU-RIB:LEU-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-RIB:PRO-CA

3 0
4 0
5 3
6 5
7 8
8 13
9 20

A-P:PHE-S2

3 0
4 0
5 0
6 5
7 8
8 13

9 20
U-RIB:GLN-S1
3 0
4 0
5 1
6 2
7 4
8 7
9 10
C31-RIB:GLU-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-P:PHE-CA
3 0
4 0
5 4
6 6
7 10
8 16
9 25
H2U-MY:PHE-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
DA-RIB:SER-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-R6:GLU-S1
3 0
4 0
5 6
6 11
7 18
8 28
9 43
C31-RIB:LEU-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-RIB:ASP-CA

3	0
4	0
5	6
6	11
7	17
8	27
9	41

H2U-P:PHE-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

C-RIB:SER-CA

3	0
4	0
5	3
6	6
7	9
8	15
9	23

U34-MY:ASN-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

U-P:HIS-CA

3	0
4	0
5	1
6	0
7	3
8	4
9	7

U34-MY:SER-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

G-R5:GLU-S1

3	0
4	0
5	8
6	14
7	22
8	36
9	54

DA-RIB:VAL-CA

3	0
4	0

5	0
6	0
7	0
8	0
9	0
H2U-RIB:PHE-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FMU-RIB:HIS-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-M6:PHE-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
H2U-MY:ASN-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
DA-M6:THR-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
GTP-RIB:THR-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-P:ALA-CA	
3	0
4	0
5	7
6	12

7	18
8	29
9	44
FMU-P:ASP-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
DA-M5:THR-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R6:PHE-S1	
3	0
4	0
5	4
6	6
7	10
8	16
9	25
U-Y:ASP-S2	
3	0
4	0
5	2
6	4
7	7
8	11
9	17
G-RIB:ALA-CA	
3	0
4	0
5	8
6	15
7	23
8	36
9	56
G-R6:CYS-CA	
3	0
4	0
5	0
6	0
7	3
8	4
9	7
FMU-RIB:GLN-S2	
3	0
4	0
5	0
6	0
7	0
8	0

9	0
G-RIB:SER-S1	
3	0
4	0
5	5
6	10
7	15
8	24
9	37
IU-MY:LYS-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
H2U-P:LEU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-M6:GLU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-P:MET-CA	
3	0
4	0
5	1
6	2
7	3
8	4
9	7
A-P:ASN-S1	
3	0
4	0
5	3
6	5
7	8
8	14
9	21
A-P:TRP-CA	
3	0
4	0
5	1
6	1
7	3
8	4
9	7
C-P:GLU-S1	

3 0
4 0
5 5
6 9
7 14
8 22
9 34

U-P:ALA-S1

3 0
4 0
5 3
6 6
7 10
8 16
9 24

U-RIB:CYS-S1

3 0
4 0
5 0
6 0
7 1
8 2
9 3

H2U-RIB:GLU-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-RIB:PRO-S1

3 0
4 0
5 3
6 5
7 8
8 13
9 20

G-P:VAL-CA

3 0
4 0
5 0
6 13
7 20
8 32
9 49

U31-P:GLN-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-Y:GLY-CA

3 0
4 0

5	3
6	5
7	8
8	13
9	21
A-RIB:ASN-S2	
3	0
4	0
5	3
6	5
7	8
8	13
9	21
FHU-P:LEU-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R5:ARG-CA	
3	0
4	0
5	0
6	9
7	15
8	24
9	36
IU-RIB:GLN-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
IU-RIB:ARG-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-M5:LYS-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FHU-MY:ASP-S2	
3	0
4	0
5	0
6	0

7 0
8 0
9 0

QUO-M6:GLN-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

QUO-M6:LYS-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-RIB:GLN-S2

3 0
4 0
5 3
6 6
7 10
8 15
9 24

FMU-RIB:GLU-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U31-MY:ILE-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

DA-M6:TYR-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

IU-MY:LYS-S1

3 0
4 0
5 0
6 0
7 0
8 0

9 0
DA-M6:LYS-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-RIB:LYS-S2
3 0
4 0
5 4
6 8
7 12
8 19
9 29
U-RIB:GLN-CA
3 0
4 0
5 0
6 2
7 4
8 7
9 10
FHU-P:PRO-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-P:ALA-CA
3 0
4 0
5 8
6 15
7 23
8 36
9 55
U34-P:PHE-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U34-MY:TYR-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-P:HIS-S1

3 0
4 0
5 1
6 2
7 4
8 6
9 10

H2U-MY:ILE-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-P:MET-S2

3 0
4 0
5 2
6 4
7 6
8 10
9 16

G-P:GLN-CA

3 0
4 0
5 3
6 6
7 10
8 15
9 24

U31-MY:GLN-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-RIB:PHE-CA

3 0
4 0
5 3
6 5
7 8
8 13
9 20

U-P:ASN-S2

3 0
4 0
5 1
6 3
7 4
8 7
9 11

U34-RIB:ASN-S2

3 0
4 0

5	0
6	0
7	0
8	0
9	0
U-P:PRO-S1	
3	0
4	0
5	2
6	3
7	5
8	9
9	13
A-R5:PRO-S1	
3	0
4	0
5	3
6	6
7	10
8	16
9	25
A-R5:HIS-S1	
3	0
4	0
5	2
6	3
7	5
8	8
9	13
A-R6:CYS-CA	
3	0
4	0
5	0
6	0
7	2
8	3
9	5
U-Y:PRO-CA	
3	0
4	0
5	2
6	3
7	5
8	9
9	13
G-RIB:TRP-S2	
3	0
4	0
5	1
6	2
7	3
8	5
9	9
G-R5:ARG-S1	
3	0
4	0
5	7
6	12

7	19
8	30
9	46
U-RIB:VAL-CA	
3	0
4	0
5	0
6	5
7	9
8	14
9	21
C-RIB:TRP-S1	
3	0
4	0
5	0
6	1
7	2
8	3
9	5
QUO-RIB:LEU-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R6:ASP-S1	
3	0
4	0
5	5
6	9
7	13
8	21
9	33
U-P:ILE-CA	
3	0
4	0
5	0
6	4
7	6
8	10
9	16
DA-M6:THR-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-P:TYR-S1	
3	0
4	0
5	3
6	5
7	9
8	14

9	21
U-P:TYR-S2	
3	0
4	0
5	0
6	2
7	4
8	6
9	9
A-RIB:GLU-S2	
3	0
4	0
5	6
6	11
7	18
8	28
9	43
FMU-MY:ARG-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
FMU-P:ILE-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R5:THR-S1	
3	0
4	0
5	5
6	9
7	14
8	22
9	34
G-R6:HIS-S2	
3	0
4	0
5	0
6	4
7	6
8	10
9	16
H2U-MY:LEU-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-R6:TRP-S2	

3 0
4 0
5 1
6 2
7 3
8 5
9 9

DA-M5:LYS-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-RIB:ALA-S1

3 0
4 1
5 8
6 15
7 23
8 36
9 56

FHU-RIB:ASP-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-Y:ALA-S1

3 0
4 0
5 5
6 9
7 14
8 23
9 35

C-Y:ARG-S2

3 0
4 0
5 4
6 7
7 12
8 19
9 29

4SU-P:GLU-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-P:SER-S1

3 0
4 0

5	0
6	0
7	0
8	0
9	0
G-RIB:MET-S2	
3	0
4	0
5	2
6	4
7	7
8	11
9	16
U-Y:LYS-CA	
3	0
4	0
5	3
6	5
7	8
8	13
9	20
C-P:PRO-S1	
3	0
4	0
5	3
6	5
7	8
8	13
9	19
IU-MY:PRO-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-P:ALA-CA	
3	0
4	0
5	3
6	6
7	10
8	16
9	24
H2U-MY:ASN-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
GTP-M6:SER-S1	
3	0
4	0
5	0
6	0

7	0
8	0
9	0
G-P:HIS-CA	
3	0
4	0
5	0
6	4
7	6
8	10
9	16
G-RIB:LEU-S2	
3	0
4	0
5	9
6	16
7	24
8	39
9	59
IU-MY:LEU-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R6:LYS-S2	
3	0
4	0
5	5
6	10
7	15
8	24
9	37
C31-RIB:LEU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
QUO-M5:LEU-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R6:LEU-S1	
3	0
4	0
5	7
6	12
7	19
8	31

9	47
---	----

G-R6:LEU-S1

3	0
4	1
5	9
6	16
7	24
8	39
9	59

FMU-MY:CYS-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

G-R6:ARG-S2

3	0
4	0
5	7
6	12
7	19
8	30
9	45

C-RIB:GLN-S2

3	0
4	0
5	2
6	4
7	6
8	10
9	15

A-RIB:PRO-S1

3	0
4	0
5	3
6	6
7	10
8	16
9	25

IU-MY:VAL-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

IU-MY:LEU-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

C-Y:ALA-CA

3	0
4	0
5	5
6	9
7	14
8	23
9	35

C-RIB:TRP-CA

3	0
4	0
5	0
6	1
7	2
8	3
9	5

5BU-P:PRO-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

FHU-P:HIS-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

U-RIB:ASN-S1

3	0
4	0
5	1
6	3
7	4
8	7
9	11

C-P:LEU-S2

3	0
4	0
5	6
6	10
7	15
8	24
9	37

U34-MY:PHE-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

U-RIB:ASP-CA

3	0
4	0

5	2
6	4
7	7
8	12
9	18

FMU-RIB:ILE-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

H2U-P:TRP-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

FMU-RIB:HIS-S1

3	0
4	0
5	0
6	0
7	0
8	0
9	0

FHU-P:LYS-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

G-R5:TYR-S2

3	0
4	0
5	3
6	6
7	9
8	14
9	22

G-RIB:PHE-S1

3	0
4	0
5	4
6	6
7	10
8	16
9	25

A-R5:TRP-S2

3	0
4	0
5	0
6	1

7 3
8 4
9 7

FMU-MY:PHE-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-P:ASP-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

QUO-P:PHE-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U34-P:ASN-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

H2U-RIB:GLU-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-MY:GLY-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U31-P:SER-S1

3 0
4 0
5 0
6 0
7 0
8 0

9 0
FHU-RIB:ILE-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
IU-MY:MET-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U31-RIB:ASN-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
DA-RIB:GLN-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U31-RIB:GLU-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U-RIB:ASP-S1
3 0
4 0
5 2
6 4
7 7
8 11
9 18
FHU-P:VAL-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
A-RIB:LYS-S1

3	0
4	0
5	6
6	10
7	15
8	24
9	37

FHU-MY:ASP-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

C-RIB:SER-S1

3	0
4	0
5	3
6	6
7	9
8	15
9	23

U-RIB:GLU-S2

3	0
4	0
5	3
6	6
7	9
8	15
9	23

C-P:LEU-S1

3	0
4	0
5	6
6	10
7	15
8	24
9	37

G-R5:GLY-CA

3	0
4	0
5	7
6	13
7	20
8	31
9	48

A-RIB:TRP-CA

3	0
4	0
5	0
6	1
7	3
8	4
9	7

FMU-MY:SER-CA

3	0
4	0

5	0
6	0
7	0
8	0
9	0
GTP-M5:SER-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-RIB:THR-CA	
3	0
4	0
5	0
6	4
7	6
8	9
9	14
G-P:ILE-S1	
3	0
4	0
5	5
6	10
7	15
8	24
9	37
G-R5:ASN-CA	
3	0
4	0
5	4
6	7
7	11
8	17
9	26
DA-M5:SER-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
IU-RIB:ALA-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
IU-MY:PRO-S1	
3	0
4	0
5	0
6	0

7 0
8 0
9 0
IU-MY:LYS-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

I-RIB:ALA-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-RIB:ASN-S2

3 0
4 0
5 4
6 7
7 11
8 17
9 26

FMU-MY:HIS-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-R6:HIS-CA

3 0
4 0
5 2
6 4
7 6
8 10
9 16

FHU-RIB:SER-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U34-P:ASN-S1

3 0
4 0
5 0
6 0
7 0
8 0

9 0
QUO-M5:LEU-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-P:TRP-S1

3 0
4 0
5 0
6 1
7 1
8 2
9 3

A-P:TRP-S2

3 0
4 0
5 0
6 1
7 3
8 4
9 7

G-R6:ASP-S1

3 0
4 0
5 6
6 11
7 17
8 27
9 41

A-RIB:TRP-S1

3 0
4 0
5 1
6 1
7 3
8 4
9 7

U34-RIB:ASN-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

5BU-P:PRO-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-R5:SER-CA

3 0
4 0
5 0
6 8
7 12
8 19
9 29

C-Y:VAL-S1

3 0
4 0
5 5
6 8
7 13
8 20
9 31

A-R5:HIS-S2

3 0
4 0
5 2
6 3
7 5
8 8
9 13

4SU-P:THR-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-RIB:ALA-S1

3 0
4 0
5 7
6 12
7 18
8 29
9 44

H2U-RIB:ASN-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-RIB:TRP-S2

3 0
4 0
5 0
6 1
7 2
8 3
9 5

G-P:ASN-CA

3 0
4 0

5 4
6 7
7 11
8 17
9 26

U31-MY:PHE-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-R5:SER-S1

3 0
4 0
5 4
6 8
7 12
8 19
9 29

U-Y:PHE-CA

3 0
4 0
5 0
6 3
7 4
8 7
9 11

FHU-RIB:SER-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

G-RIB:PHE-CA

3 0
4 0
5 4
6 6
7 10
8 16
9 25

DA-M5:LYS-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-RIB:THR-CA

3 0
4 0
5 3
6 5

7 9
8 14
9 21

GTP-M5:THR-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U-RIB:ARG-S1

3 0
4 0
5 3
6 5
7 8
8 13
9 20

U-P:MET-S1

3 0
4 0
5 1
6 2
7 3
8 4
9 7

U31-P:TYR-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-P:PHE-S2

3 0
4 0
5 0
6 4
7 6
8 10
9 16

FMU-RIB:PHE-S1

3 0
4 0
5 0
6 0
7 0
8 0
9 0

FHU-MY:LYS-S1

3 0
4 0
5 0
6 0
7 0
8 0

9 0
G-R5:PHE-S2
3 0
4 0
5 0
6 6
7 10
8 16
9 25
C31-P:ASP-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-Y:PHE-S1
3 0
4 0
5 2
6 4
7 6
8 10
9 16
C-RIB:CYS-CA
3 0
4 0
5 0
6 1
7 0
8 3
9 4
H2U-MY:ARG-S2
3 0
4 0
5 0
6 0
7 0
8 0
9 0
G-R5:LEU-CA
3 0
4 0
5 9
6 16
7 24
8 39
9 59
G-R5:ARG-S2
3 0
4 0
5 7
6 12
7 19
8 30
9 45
A-RIB:ILE-CA

3	0
4	0
5	4
6	8
7	12
8	19
9	30

U34-P:TYR-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

A-P:GLY-CA

3	0
4	0
5	6
6	10
7	15
8	25
9	38

DA-RIB:ASP-S2

3	0
4	0
5	0
6	0
7	0
8	0
9	0

C-P:CYS-S1

3	0
4	0
5	0
6	1
7	1
8	3
9	4

FHU-RIB:PRO-CA

3	0
4	0
5	0
6	0
7	0
8	0
9	0

G-P:LEU-S2

3	0
4	1
5	9
6	16
7	24
8	38
9	58

FMU-MY:ASN-S1

3	0
4	0

5	0
6	0
7	0
8	0
9	0
A-R6:SER-CA	
3	0
4	0
5	4
6	8
7	12
8	19
9	29
G-R6:GLU-CA	
3	0
4	0
5	0
6	14
7	22
8	36
9	55
IU-RIB:LEU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-RIB:ASN-CA	
3	0
4	0
5	1
6	3
7	4
8	7
9	11
DA-M5:SER-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U31-MY:GLN-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-RIB:ALA-CA	
3	0
4	0
5	7
6	12

7	18
8	29
9	44
C31-P:GLN-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
U-P:LEU-S2	
3	0
4	0
5	0
6	7
7	10
8	17
9	26
FHU-RIB:LYS-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-RIB:LEU-CA	
3	0
4	0
5	0
6	12
7	19
8	31
9	47
U34-P:PRO-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R5:ALA-S1	
3	0
4	0
5	0
6	12
7	18
8	29
9	44
FMU-MY:ALA-S1	
3	0
4	0
5	0
6	0
7	0
8	0

9 0
C-Y:GLN-S1
3 0
4 0
5 0
6 4
7 6
8 10
9 15
A-R6:LYS-S1
3 0
4 0
5 6
6 10
7 15
8 24
9 37
U-RIB:ARG-CA
3 0
4 0
5 3
6 5
7 8
8 13
9 20
H2U-MY:GLN-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
C-P:CYS-CA
3 0
4 0
5 0
6 0
7 1
8 3
9 4
FHU-MY:ILE-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
U31-RIB:PHE-S1
3 0
4 0
5 0
6 0
7 0
8 0
9 0
GTP-M5:ASP-S2

3 0
4 0
5 0
6 0
7 0
8 0
9 0

C-RIB:GLN-S1

3 0
4 0
5 2
6 4
7 6
8 10
9 15

C-P:GLN-CA

3 0
4 0
5 2
6 4
7 6
8 10
9 15

U-P:GLU-S1

3 0
4 0
5 3
6 6
7 10
8 15
9 24

U-Y:GLN-S1

3 0
4 0
5 0
6 0
7 4
8 7
9 10

DA-M6:HIS-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

U31-MY:ALA-CA

3 0
4 0
5 0
6 0
7 0
8 0
9 0

A-R5:ILE-S1

3 0
4 0

5	4
6	8
7	12
8	19
9	30
C-Y:LEU-CA	
3	0
4	0
5	6
6	10
7	15
8	24
9	38
FHU-P:GLY-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C31-P:GLU-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
C-RIB:HIS-S1	
3	0
4	0
5	1
6	2
7	4
8	6
9	10
U-RIB:ASP-S2	
3	0
4	0
5	2
6	4
7	7
8	11
9	17
C-Y:PHE-CA	
3	0
4	0
5	0
6	4
7	6
8	10
9	16
G-R6:VAL-S1	
3	0
4	0
5	7
6	13

7	20
8	32
9	49
C-RIB:CYS-S1	
3	0
4	0
5	0
6	0
7	1
8	3
9	4
QUO-M5:GLU-S2	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
A-R5:VAL-CA	
3	0
4	0
5	6
6	10
7	16
8	26
9	39
5BU-MY:PRO-CA	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
GTP-M5:THR-S1	
3	0
4	0
5	0
6	0
7	0
8	0
9	0
G-RIB:GLU-S1	
3	0
4	0
5	8
6	14
7	22
8	36
9	54
U-Y:CYS-CA	
3	0
4	0
5	0
6	0
7	0
8	2

9 3
U-Y:MET-S1
3 0
4 0
5 1
6 2
7 3
8 4
9 7
A-R5:GLU-CA
3 0
4 0
5 7
6 11
7 18
8 28
9 43
U-RIB:TRP-S2
3 0
4 0
5 0
6 1
7 1
8 2
9 4
A-R5:TYR-S1
3 0
4 0
5 2
6 4
7 7
8 11
9 17
QUO-M6:ARG-CA
3 0
4 0
5 0
6 0
7 0
8 0
9 0
EXPECTED_ANG
5BU-P:PRO-S1
20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0

320	0
340	0
360	0
C-Y:ASP-S1	
20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	0
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	1
C-RIB:CYS-S1	
20	0
40	0
60	0
80	0
100	1
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	1
280	1
300	0
320	0
340	0
360	0
A-P:VAL-CA	
20	0
40	0
60	6
80	8
100	9
120	8
140	6
160	4
180	1
200	0
220	0
240	6
260	8
280	9
300	8
320	7

340 5
360 2
OMC-RIB:LYS-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-RIB:GLU-S1

20 0
40 2
60 5
80 7
100 7
120 7
140 5
160 4
180 1
200 0
220 0
240 5
260 7
280 7
300 7
320 6
340 4
360 1

GTP-M5:ASP-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0

360 0
G-RIB:SER-S1

20 0
40 3
60 5
80 7
100 8
120 7
140 6
160 4
180 1
200 0
220 3
240 5
260 7
280 8
300 7
320 6
340 4
360 1

C-RIB:VAL-S1

20 0
40 2
60 5
80 6
100 7
120 6
140 5
160 3
180 0
200 0
220 0
240 4
260 6
280 7
300 6
320 5
340 4
360 1

G-R5:CYS-S1

20 0
40 0
60 0
80 0
100 0
120 1
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

M2G-P:GLU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:ASN-S2

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	1
240	1
260	2
280	2
300	2
320	2
340	1
360	0

A-RIB:ASN-S1

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

C-Y:LYS-CA

20	0
40	2
60	4
80	6
100	6
120	6
140	5
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

A-R6:ILE-S1

20	0
40	2
60	4
80	6
100	0
120	6
140	4
160	0
180	1
200	0
220	0
240	4
260	6
280	6
300	6
320	5
340	3
360	0

H2U-MY:GLN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-Y:CYS-S1

20	0
----	---

40	0
60	0
80	1
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-MY:SER-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-MY:ARG-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-P:GLU-S2

20	0
40	0

60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-RIB:TRP-CA

20	0
40	0
60	0
80	1
100	2
120	0
140	1
160	1
180	0
200	0
220	0
240	1
260	1
280	2
300	1
320	1
340	0
360	0

U31-MY:ASP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:GLU-S2

20	0
40	3
60	6

80	9
100	9
120	8
140	7
160	5
180	2
200	0
220	3
240	6
260	9
280	9
300	9
320	7
340	5
360	2

C-P:ARG-S1

20	0
40	2
60	4
80	6
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

FHU-RIB:THR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:MET-S2

20	0
40	0
60	1
80	2

100	2
120	2
140	1
160	0
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0
C-P:VAL-S1	
20	0
40	2
60	4
80	6
100	7
120	6
140	5
160	3
180	1
200	0
220	2
240	4
260	6
280	7
300	6
320	5
340	4
360	1
U-Y:ARG-S1	
20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1
G-R5:ASP-S2	
20	0
40	3
60	6
80	8
100	9

120	8
140	6
160	5
180	2
200	0
220	3
240	6
260	8
280	9
300	8
320	7
340	5
360	2

C-P:LYS-CA

20	0
40	2
60	4
80	6
100	6
120	6
140	5
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

H2U-P:ASN-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:LEU-S1

20	0
40	4
60	9
80	12
100	13
120	12

140	9
160	7
180	2
200	1
220	5
240	9
260	12
280	13
300	12
320	10
340	7
360	3

FMU-RIB:GLN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M5:GLU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-MY:ILE-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0

160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-RIB:LEU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:LYS-S1

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

U31-MY:VAL-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0

180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
M2G-P:SER-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U-RIB:ASP-CA	
20	0
40	1
60	2
80	3
100	4
120	3
140	3
160	2
180	0
200	0
220	1
240	2
260	3
280	4
300	3
320	3
340	2
360	0
A-RIB:GLU-CA	
20	0
40	3
60	0
80	9
100	9
120	8
140	7
160	5
180	0

200	0
220	0
240	0
260	9
280	9
300	9
320	7
340	5
360	2

IU-P:ALA-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-P:ASN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:ASP-S1

20	0
40	2
60	5
80	6
100	7
120	6
140	5
160	4
180	0
200	0

220	2
240	5
260	7
280	7
300	6
320	5
340	4
360	1

5BU-P:ILE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-P:GLU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U34-MY:PHE-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0

240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:MET-S2

20	0
40	0
60	1
80	1
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	1
280	1
300	0
320	1
340	0
360	0

IU-RIB:ALA-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M6:ASP-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0

260 0
280 0
300 0
320 0
340 0
360 0

A-P:TYR-S2

20 0
40 1
60 2
80 3
100 4
120 3
140 2
160 2
180 0
200 0
220 1
240 2
260 3
280 4
300 3
320 3
340 2
360 0

C-RIB:THR-S1

20 0
40 1
60 3
80 4
100 4
120 4
140 3
160 2
180 1
200 0
220 1
240 3
260 4
280 4
300 4
320 3
340 2
360 1

FHU-RIB:ASP-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0

280	0
300	0
320	0
340	0
360	0

FHU-P:SER-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

IU-MY:LEU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:ASP-S1

20	0
40	2
60	5
80	6
100	7
120	6
140	5
160	4
180	1
200	0
220	2
240	5
260	7
280	7

300	6
320	5
340	4
360	1

FHU-RIB:ASP-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-RIB:ILE-CA

20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	3
180	1
200	0
220	2
240	0
260	5
280	5
300	5
320	4
340	3
360	1

U31-RIB:GLN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0

320 0
340 0
360 0

C31-MY:SER-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U31-RIB:MET-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

OMC-RIB:LYS-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0

340 0
360 0
QUO-M6:PHE-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U34-MY:PRO-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FHU-RIB:SER-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0

360 0
OMC-MY:LYS-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

GTP-M5:ASN-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-R6:PRO-CA

20 0
40 2
60 4
80 6
100 7
120 6
140 5
160 3
180 0
200 0
220 2
240 4
260 6
280 7
300 0
320 5
340 4
360 1

U-RIB:MET-S1

20	0
40	0
60	1
80	1
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	1
280	1
300	1
320	1
340	0
360	0

C31-MY:TYR-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-P:ASP-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-P:LEU-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U31-RIB:GLU-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

H2U-MY:ASN-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-RIB:LYS-CA

20 1

40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	2

C31-RIB:SER-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-RIB:ILE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:THR-S1

20	0
40	2

60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	1

U-Y:THR-S1

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	1
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	0
360	0

A-RIB:SER-CA

20	0
40	2
60	4
80	6
100	6
120	6
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

A-R5:ASN-CA

20	0
40	1
60	3

80	4
100	4
120	4
140	3
160	0
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

A-RIB:ALA-CA

20	1
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	0
200	0
220	3
240	7
260	9
280	10
300	9
320	7
340	5
360	0

A-P:GLN-S1

20	0
40	1
60	3
80	4
100	4
120	3
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	0

FHU-MY:PRO-S1

20	0
40	0
60	0
80	0

100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U34-RIB:SER-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

DA-M6:SER-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:LEU-S2

20	0
40	2
60	4
80	5
100	5

120	5
140	4
160	3
180	0
200	0
220	2
240	4
260	5
280	5
300	5
320	4
340	3
360	0

FHU-P:ASP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M6:GLU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M6:ASN-CA

20	0
40	0
60	0
80	0
100	0
120	0

140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:SER-CA

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

C-RIB:SER-CA

20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	2
180	1
200	0
220	2
240	3
260	5
280	5
300	4
320	4
340	3
360	1

C-P:CYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0

160	0
180	0
200	0
220	0
240	0
260	0
280	1
300	0
320	0
340	0
360	0

G-RIB:ASN-S2

20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	1

C31-MY:THR-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-RIB:LEU-S2

20	0
40	0
60	0
80	5
100	5
120	5
140	4
160	3

180	1
200	0
220	2
240	4
260	5
280	5
300	5
320	4
340	3
360	1

C-Y:THR-S1

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

H2U-RIB:GLU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-RIB:GLU-S2

20	0
40	0
60	3
80	5
100	5
120	4
140	3
160	2
180	1

200 0
220 2
240 3
260 5
280 5
300 4
320 4
340 3
360 1

A-P:TYR-CA

20 0
40 0
60 2
80 3
100 4
120 3
140 2
160 2
180 0
200 0
220 1
240 2
260 3
280 4
300 3
320 3
340 2
360 0

G-P:LYS-S2

20 1
40 3
60 7
80 9
100 10
120 9
140 7
160 5
180 2
200 0
220 3
240 7
260 9
280 10
300 9
320 8
340 5
360 2

G-P:ILE-S1

20 0
40 3
60 5
80 7
100 8
120 7
140 6
160 4
180 0
200 0

220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

U31-MY:TYR-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-RIB:PHE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-RIB:PHE-S2

20	0
40	0
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	0

240	0
260	3
280	3
300	3
320	2
340	2
360	0

U-RIB:ASN-S1

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	1
240	1
260	2
280	2
300	2
320	2
340	1
360	0

DA-M5:ASN-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:LYS-S2

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3

260	4
280	4
300	4
320	3
340	2
360	1

U31-MY:MET-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:TRP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-P:LYS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0

280 0
300 0
320 0
340 0
360 0

U-P:GLY-CA

20 0
40 1
60 3
80 4
100 4
120 4
140 3
160 2
180 1
200 0
220 1
240 3
260 4
280 4
300 4
320 3
340 2
360 1

U-P:TRP-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

DA-M5:SER-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0

300	0
320	0
340	0
360	0
C-RIB:TRP-S2	
20	0
40	0
60	0
80	1
100	1
120	1
140	0
160	0
180	0
200	0
220	0
240	0
260	1
280	1
300	1
320	1
340	0
360	0
U31-P:ARG-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
G-R5:THR-CA	
20	0
40	2
60	5
80	7
100	7
120	6
140	5
160	4
180	0
200	0
220	2
240	5
260	7
280	7
300	7

320 6
340 0
360 0

QUO-P:LEU-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C31-RIB:ALA-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-R5:GLU-S2

20 1
40 4
60 8
80 11
100 12
120 11
140 8
160 6
180 2
200 1
220 4
240 8
260 11
280 12
300 11
320 9

340 7
360 0
FHU-MY:ASP-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-R5:SER-S1

20 0
40 3
60 5
80 7
100 8
120 7
140 6
160 4
180 1
200 0
220 3
240 5
260 7
280 8
300 7
320 6
340 4
360 1

U-Y:ASP-S1

20 0
40 1
60 2
80 3
100 4
120 3
140 3
160 2
180 0
200 0
220 1
240 2
260 3
280 0
300 3
320 0
340 0

360	0
U31-RIB:ASN-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
IU-MY:MET-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U-RIB:THR-CA	
20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	1
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	1
360	0

U-RIB:MET-CA

20	0
40	0
60	1
80	1
100	1
120	1
140	0
160	0
180	0
200	0
220	0
240	0
260	1
280	1
300	1
320	0
340	0
360	0

G-R5:PHE-CA

20	0
40	2
60	4
80	5
100	5
120	0
140	0
160	3
180	0
200	0
220	2
240	4
260	5
280	5
300	0
320	4
340	0
360	0

A-P:HIS-S1

20	0
40	1
60	2
80	2
100	2
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	2
300	2
320	2
340	1
360	0

GTP-M5:THR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-MY:ALA-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-RIB:LYS-S2

20	0
40	2
60	4
80	6
100	6
120	6
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

G-R6:PRO-S1

20	0
----	---

40	2
60	4
80	6
100	7
120	6
140	5
160	3
180	0
200	0
220	2
240	4
260	6
280	7
300	6
320	5
340	4
360	0

A-R6:MET-CA

20	0
40	0
60	2
80	2
100	3
120	2
140	2
160	0
180	0
200	0
220	0
240	2
260	2
280	3
300	2
320	2
340	1
360	0

FHU-RIB:ALA-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U34-MY:ASP-CA

20	0
40	0

60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U-RIB:GLN-CA	
20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0
DA-M5:LYS-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
G-RIB:ASP-CA	
20	0
40	3
60	6

80	8
100	9
120	8
140	6
160	5
180	2
200	0
220	3
240	6
260	8
280	9
300	8
320	7
340	5
360	2

H2U-P:ASN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-RIB:ALA-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:CYS-S1

20	0
40	0
60	0
80	0

100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-P:TYR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

GTP-M6:ASN-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-RIB:GLN-CA

20	0
40	1
60	2
80	3
100	3

120	3
140	2
160	1
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	2
360	0

A-RIB:LEU-CA

20	0
40	3
60	7
80	10
100	10
120	9
140	7
160	5
180	2
200	0
220	4
240	0
260	10
280	10
300	9
320	8
340	6
360	2

U-RIB:VAL-CA

20	0
40	0
60	3
80	4
100	4
120	4
140	3
160	0
180	1
200	0
220	0
240	0
260	4
280	4
300	4
320	3
340	2
360	1

GTP-M5:SER-CA

20	0
40	0
60	0
80	0
100	0
120	0

140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-RIB:TYR-S1

20	0
40	0
60	0
80	2
100	2
120	1
140	1
160	1
180	0
200	0
220	0
240	0
260	0
280	2
300	2
320	1
340	1
360	0

A-P:PHE-S2

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	0

IU-P:ILE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0

160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-RIB:ILE-S1

20	0
40	3
60	0
80	7
100	8
120	7
140	6
160	0
180	0
200	0
220	3
240	0
260	7
280	8
300	7
320	6
340	4
360	1

A-R5:THR-S1

20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	0

C-Y:TYR-S2

20	0
40	1
60	2
80	2
100	3
120	2
140	2
160	1

180	0
200	0
220	1
240	2
260	2
280	3
300	2
320	2
340	1
360	0

G-R5:GLU-S1

20	0
40	4
60	8
80	11
100	12
120	0
140	9
160	6
180	2
200	1
220	4
240	8
260	11
280	12
300	11
320	9
340	7
360	2

C31-RIB:GLU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:TRP-S1

20	0
40	0
60	0
80	1
100	1
120	1
140	0
160	0
180	0

200	0
220	0
240	1
260	1
280	1
300	0
320	1
340	0
360	0

G-RIB:HIS-S2

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	2
360	0

G-P:PHE-S1

20	0
40	0
60	3
80	5
100	5
120	5
140	4
160	3
180	0
200	0
220	0
240	3
260	5
280	5
300	5
320	4
340	3
360	1

IU-RIB:PRO-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0

220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FMU-RIB:ALA-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FHU-MY:ALA-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

QUO-RIB:ASN-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0

240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:SER-S1

20	0
40	2
60	4
80	6
100	6
120	6
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

A-RIB:MET-S1

20	0
40	0
60	0
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	3
300	2
320	2
340	1
360	0

U-RIB:PHE-S2

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1

260	0
280	2
300	2
320	2
340	1
360	0

C31-P:ALA-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:PRO-S1

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

U31-RIB:THR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0

280 0
300 0
320 0
340 0
360 0

C-P:LYS-S2

20 0
40 2
60 4
80 6
100 6
120 6
140 4
160 3
180 1
200 0
220 2
240 4
260 6
280 6
300 6
320 5
340 3
360 1

QUO-M5:LEU-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-P:THR-S1

20 0
40 0
60 5
80 7
100 7
120 6
140 5
160 4
180 1
200 0
220 0
240 5
260 7
280 7

300	7
320	5
340	4
360	1
G-R6:LYS-S2	
20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	4
240	7
260	9
280	10
300	9
320	8
340	6
360	0
C-RIB:HIS-S2	
20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0
C-RIB:GLU-CA	
20	0
40	2
60	5
80	7
100	7
120	7
140	5
160	4
180	1
200	0
220	3
240	5
260	7
280	7
300	7

320 6
340 4
360 1

U31-MY:PHE-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

H2U-MY:LEU-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-RIB:ARG-S1

20 0
40 2
60 4
80 6
100 6
120 5
140 4
160 3
180 1
200 0
220 2
240 4
260 6
280 6
300 6
320 5

340	3
360	1
U-P:LYS-CA	
20	0
40	0
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1
DA-M5:GLN-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
G-R6:VAL-CA	
20	0
40	0
60	7
80	10
100	11
120	10
140	8
160	0
180	2
200	0
220	4
240	7
260	10
280	11
300	10
320	8
340	6

360	0
FHU-P:ALA-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
C-RIB:MET-S1	
20	0
40	0
60	0
80	2
100	2
120	2
140	0
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	0
360	0
A-R6:SER-S1	
20	0
40	2
60	4
80	6
100	6
120	6
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

A-P: ILE-CA

20	0
40	0
60	4
80	6
100	6
120	6
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

DA-M6: TYR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-RIB: PHE-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

DA-M5: TYR-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FHU-P:GLY-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

5BU-P:ALA-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FMU-RIB:GLU-S1

20 0

40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
C31-P:ASN-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U-Y:PHE-CA	
20	0
40	0
60	1
80	2
100	0
120	2
140	1
160	0
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	2
340	0
360	0
U-RIB:PRO-CA	
20	0
40	1

60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	0
240	2
260	2
280	3
300	2
320	2
340	0
360	0
C-P:PHE-CA	
20	0
40	0
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	0
240	2
260	3
280	3
300	3
320	0
340	2
360	0
U34-P:ASN-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
C-RIB:TYR-CA	
20	0
40	0
60	2

80	2
100	3
120	2
140	0
160	0
180	0
200	0
220	1
240	2
260	2
280	3
300	2
320	2
340	1
360	0
U34-P:SER-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
C-RIB:HIS-S1	
20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0
C31-P:TYR-S2	
20	0
40	0
60	0
80	0

100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:TRP-S1

20	0
40	0
60	0
80	1
100	1
120	1
140	0
160	0
180	0
200	0
220	0
240	0
260	1
280	1
300	0
320	1
340	0
360	0

H2U-P:LEU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:MET-CA

20	0
40	0
60	1
80	1
100	0

120	0
140	0
160	0
180	0
200	0
220	0
240	1
260	1
280	0
300	1
320	1
340	0
360	0

U-RIB:ARG-S1

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

G-R5:ILE-CA

20	0
40	0
60	5
80	7
100	8
120	0
140	0
160	0
180	0
200	0
220	3
240	5
260	7
280	8
300	7
320	0
340	4
360	0

C31-RIB:LEU-S2

20	0
40	0
60	0
80	0
100	0
120	0

140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-RIB:ILE-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-RIB:ASP-S1

20	0
40	3
60	6
80	8
100	9
120	8
140	6
160	5
180	2
200	0
220	3
240	6
260	8
280	9
300	8
320	7
340	5
360	2

U-RIB:TRP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0

160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:TRP-S1

20	0
40	0
60	1
80	0
100	2
120	0
140	1
160	1
180	0
200	0
220	0
240	1
260	1
280	2
300	1
320	1
340	0
360	0

FMU-MY:GLN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-P:THR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0

180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-RIB:GLN-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-Y:LEU-CA

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	0
200	0
220	3
240	5
260	8
280	8
300	7
320	6
340	4
360	1

FMU-RIB:MET-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0

200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:HIS-CA

20	0
40	1
60	2
80	2
100	2
120	2
140	2
160	1
180	0
200	0
220	0
240	2
260	2
280	2
300	2
320	2
340	1
360	0

FMU-MY:PHE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U34-MY:SER-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0

220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:HIS-S1

20	0
40	1
60	2
80	2
100	2
120	2
140	2
160	1
180	0
200	0
220	0
240	2
260	2
280	2
300	2
320	2
340	1
360	0

FMU-MY:SER-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:ILE-CA

20	0
40	0
60	2
80	0
100	3
120	3
140	2
160	2
180	0
200	0
220	0

240	2
260	3
280	3
300	3
320	2
340	2
360	0

H2U-RIB:PHE-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:PRO-CA

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	0
240	3
260	4
280	4
300	4
320	3
340	2
360	1

C31-P:MET-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0

260	0
280	0
300	0
320	0
340	0
360	0

G-P:ASN-S2

20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	1

DA-M6:HIS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:TRP-S1

20	0
40	0
60	0
80	1
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	1

280	1
300	1
320	1
340	0
360	0
4SU-P:GLU-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
A-P:HIS-CA	
20	0
40	1
60	2
80	2
100	2
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	2
300	2
320	2
340	1
360	0
A-RIB:THR-CA	
20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6

300 5
320 4
340 3
360 1

A-RIB:GLN-S2

20 0
40 1
60 3
80 4
100 4
120 3
140 3
160 2
180 0
200 0
220 1
240 3
260 4
280 4
300 4
320 3
340 2
360 0

FMU-MY:CYS-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U34-RIB:ASN-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0

320 0
340 0
360 0

A-R5:MET-S1

20 0
40 0
60 2
80 2
100 3
120 2
140 2
160 0
180 0
200 0
220 1
240 2
260 2
280 0
300 2
320 2
340 1
360 0

U-P:ASN-S1

20 0
40 0
60 1
80 2
100 2
120 2
140 1
160 1
180 0
200 0
220 1
240 1
260 2
280 2
300 2
320 2
340 1
360 0

G-RIB:ARG-S2

20 1
40 3
60 7
80 9
100 10
120 9
140 7
160 5
180 2
200 0
220 3
240 7
260 9
280 10
300 9
320 8

340 5
360 2
C-Y:ARG-CA

20 0
40 2
60 4
80 6
100 6
120 5
140 4
160 3
180 1
200 0
220 2
240 4
260 6
280 6
300 6
320 5
340 3
360 0

G-R5:HIS-CA

20 0
40 1
60 2
80 3
100 3
120 3
140 2
160 0
180 0
200 0
220 1
240 2
260 3
280 3
300 3
320 2
340 2
360 0

A-RIB:CYS-S1

20 0
40 0
60 0
80 0
100 1
120 1
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 1
320 0
340 0

360 0
C-RIB:ASN-S1

20 0
40 1
60 2
80 3
100 3
120 3
140 2
160 2
180 0
200 0
220 1
240 2
260 3
280 3
300 3
320 3
340 2
360 0

A-R6:ALA-S1

20 0
40 3
60 7
80 9
100 10
120 9
140 7
160 5
180 0
200 0
220 3
240 7
260 9
280 10
300 9
320 7
340 5
360 2

U-RIB:SER-S1

20 0
40 1
60 2
80 3
100 3
120 3
140 2
160 2
180 0
200 0
220 1
240 2
260 3
280 3
300 3
320 2
340 2
360 0

QUO-M5:ASN-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-RIB:LEU-S1

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	0
240	5
260	8
280	8
300	7
320	6
340	4
360	1

A-RIB:ASP-CA

20	0
40	0
60	0
80	6
100	7
120	6
140	5
160	4
180	1
200	0
220	2
240	5
260	7
280	7
300	6
320	5
340	4
360	0

IU-P:ARG-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:GLN-S2

20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	0
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

G-R5:ASN-S1

20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	1

FMU-MY:ILE-CA

20	0
----	---

40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
C-Y:ALA-S1	
20	0
40	2
60	5
80	7
100	8
120	7
140	5
160	4
180	0
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	0
C-P:ILE-S1	
20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	3
180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	0
360	1
5BU-MY:ILE-S1	
20	0
40	0

60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U-RIB:GLN-S2	
20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0
C-P:HIS-S2	
20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0
G-RIB:GLY-CA	
20	1
40	3
60	7

80	10
100	10
120	9
140	7
160	6
180	2
200	0
220	4
240	7
260	10
280	10
300	10
320	8
340	6
360	2

U-P:HIS-S2

20	0
40	0
60	1
80	1
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	1
280	1
300	1
320	1
340	0
360	0

H2U-MY:PRO-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:CYS-CA

20	0
40	0
60	0
80	1

100	0
120	1
140	1
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	1
320	0
340	0
360	0

C-Y:THR-CA

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	0

A-P:GLU-S1

20	0
40	3
60	6
80	9
100	9
120	8
140	7
160	5
180	0
200	0
220	3
240	6
260	9
280	9
300	9
320	7
340	5
360	2

IU-RIB:ARG-S1

20	0
40	0
60	0
80	0
100	0

120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-Y:LYS-S2

20	0
40	2
60	4
80	6
100	6
120	6
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

A-P:MET-S2

20	0
40	1
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	0
240	2
260	2
280	3
300	2
320	2
340	1
360	0

DA-M5:GLU-S1

20	0
40	0
60	0
80	0
100	0
120	0

140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U34-P:HIS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U34-MY:VAL-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-MY:ALA-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0

160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

IU-P:LYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M6:ASN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:ARG-S2

20	0
40	2
60	5
80	7
100	8
120	7
140	6
160	4

180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

H2U-MY:GLU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-Y:LEU-S1

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	0
200	0
220	3
240	5
260	8
280	8
300	7
320	6
340	4
360	1

U34-P:HIS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0

200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-RIB:PRO-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-RIB:ASP-S2

20	0
40	2
60	4
80	5
100	5
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	5
300	5
320	4
340	3
360	1

4SU-P:THR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0

220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FMU-RIB:CYS-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FHU-RIB:ARG-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FMU-MY:PHE-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0

240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-P:TYR-S1

20 0
40 1
60 2
80 2
100 3
120 2
140 2
160 1
180 0
200 0
220 0
240 2
260 2
280 3
300 2
320 2
340 1
360 0

IU-MY:SER-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-RIB:HIS-S2

20 0
40 0
60 2
80 2
100 2
120 2
140 2
160 1
180 0
200 0
220 1
240 2

260	2
280	2
300	2
320	2
340	1
360	0
IU-P:SER-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
G-R6:GLY-CA	
20	1
40	3
60	7
80	10
100	10
120	9
140	7
160	6
180	2
200	0
220	4
240	7
260	10
280	10
300	10
320	8
340	6
360	2
C-Y:GLN-S1	
20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	1
180	0
200	0
220	1
240	2
260	3

280	3
300	0
320	2
340	2
360	0

C-Y:LYS-S1

20	0
40	2
60	4
80	6
100	6
120	6
140	5
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

FMU-MY:PRO-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:ARG-CA

20	0
40	2
60	5
80	7
100	8
120	7
140	6
160	4
180	0
200	0
220	3
240	5
260	7
280	8

300	7
320	6
340	4
360	1
C-P:MET-S1	
20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0
G-RIB:ASN-S1	
20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	0
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	1
U-Y:THR-CA	
20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	0
180	0
200	0
220	0
240	2
260	3
280	3
300	3

320	2
340	1
360	0

U-P:ASN-S2

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	1
240	1
260	2
280	2
300	2
320	2
340	1
360	0

FMU-P:ALA-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-RIB:ASN-CA

20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4

340 3
360 1
C-P:VAL-CA

20 0
40 2
60 5
80 6
100 7
120 6
140 5
160 3
180 1
200 0
220 2
240 4
260 6
280 7
300 6
320 5
340 4
360 1

A-R6:CYS-S1

20 0
40 0
60 0
80 1
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 1
280 1
300 0
320 1
340 0
360 0

C-Y:ASN-CA

20 0
40 1
60 2
80 3
100 3
120 3
140 2
160 0
180 0
200 0
220 0
240 2
260 3
280 3
300 3
320 3
340 2

360 0
FHU-RIB:PRO-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-P:MET-S2

20 0
40 0
60 2
80 3
100 3
120 3
140 2
160 2
180 0
200 0
220 1
240 2
260 3
280 3
300 3
320 2
340 0
360 0

U-P:TRP-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-P:LEU-S2

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	0
200	0
220	3
240	5
260	8
280	8
300	7
320	6
340	4
360	1

G-RIB:VAL-S1

20	0
40	4
60	7
80	10
100	11
120	10
140	8
160	6
180	2
200	0
220	4
240	7
260	10
280	11
300	10
320	8
340	6
360	2

DA-M5:VAL-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

DA-M6:GLU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:HIS-S2

20	0
40	1
60	2
80	2
100	2
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	2
300	2
320	2
340	1
360	0

C-Y:ILE-S1

20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	0
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	0
360	0

G-P:ASP-CA

20	0
----	---

40	0
60	0
80	8
100	9
120	8
140	6
160	5
180	2
200	0
220	3
240	6
260	8
280	9
300	8
320	7
340	5
360	2

GTP-M6:ASN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-RIB:ILE-CA

20	0
40	3
60	0
80	7
100	8
120	7
140	6
160	4
180	0
200	0
220	3
240	0
260	7
280	8
300	7
320	6
340	4
360	0

G-R6:ARG-S1

20	0
40	3

60	7
80	9
100	10
120	9
140	7
160	5
180	0
200	0
220	3
240	7
260	9
280	10
300	9
320	8
340	5
360	2

C-RIB:ARG-CA

20	0
40	2
60	4
80	6
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

U-P:CYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-MY:GLU-S1

20	0
40	0
60	0

80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:LYS-S1

20	1
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	0

IU-P:ARG-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:ILE-S1

20	0
40	3
60	5
80	7

100	8
120	7
140	6
160	0
180	0
200	0
220	3
240	5
260	7
280	8
300	7
320	0
340	0
360	0

A-RIB:TYR-CA

20	0
40	0
60	2
80	3
100	4
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	4
300	3
320	3
340	2
360	0

U31-RIB:ASN-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-RIB:GLY-CA

20	0
40	0
60	0
80	0
100	0

120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:LEU-S2

20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	0
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	2

U31-MY:ASP-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:ARG-CA

20	0
40	2
60	5
80	7
100	8
120	7

140	6
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

U34-P:TYR-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:SER-CA

20	0
40	2
60	4
80	6
100	6
120	6
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

A-P:ASN-S1

20	0
40	1
60	3
80	4
100	4
120	4
140	3

160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

DA-M6:ASN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-Y:VAL-S1

20	0
40	2
60	5
80	6
100	7
120	6
140	5
160	0
180	0
200	0
220	2
240	4
260	6
280	7
300	6
320	5
340	0
360	0

C-RIB:TYR-S1

20	0
40	0
60	2
80	2
100	3
120	2
140	2
160	1

180	0
200	0
220	1
240	0
260	2
280	3
300	2
320	2
340	1
360	0

5BU-MY:PRO-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:PRO-S1

20	0
40	1
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	3
300	2
320	0
340	1
360	0

G-R5:ARG-CA

20	1
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2

200	0
220	3
240	7
260	9
280	10
300	9
320	8
340	5
360	2

FHU-P:ARG-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:ILE-S1

20	0
40	0
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	0
260	3
280	3
300	3
320	0
340	2
360	0

U-Y:LYS-CA

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0

220 1
240 3
260 4
280 4
300 4
320 3
340 2
360 0

H2U-MY:THR-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-R5:ARG-S1

20 1
40 3
60 7
80 9
100 10
120 9
140 7
160 5
180 2
200 0
220 3
240 7
260 9
280 10
300 9
320 8
340 5
360 2

C31-P:SER-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0

240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:ARG-S2

20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	3
240	7
260	9
280	10
300	9
320	8
340	5
360	2

C-Y:ASN-S2

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	3
340	2
360	0

G-R6:ASP-S2

20	0
40	3
60	6
80	8
100	9
120	8
140	6
160	5
180	2
200	0
220	3
240	6

260	8
280	9
300	8
320	7
340	5
360	2

U-Y:ASN-S1

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	1
240	1
260	2
280	2
300	2
320	2
340	1
360	0

FMU-MY:VAL-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:VAL-CA

20	0
40	3
60	6
80	8
100	9
120	8
140	6
160	4
180	0
200	0
220	3
240	6
260	8

280	9
300	8
320	7
340	5
360	0
G-P:ARG-S1	
20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	3
240	7
260	9
280	10
300	9
320	8
340	5
360	2
C-RIB:PHE-S1	
20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	0
240	0
260	3
280	3
300	3
320	2
340	2
360	0
U-RIB:PRO-S1	
20	0
40	0
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	3

300 2
320 2
340 1
360 0

U-Y:MET-S1

20 0
40 0
60 1
80 0
100 1
120 0
140 0
160 0
180 0
200 0
220 0
240 1
260 1
280 1
300 0
320 1
340 0
360 0

FMU-RIB:ARG-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C31-P:GLN-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0

320 0
340 0
360 0

A-R6:PHE-CA

20 0
40 1
60 3
80 4

100 4
120 4
140 3

160 0
180 0
200 0

220 0
240 3
260 4

280 4
300 4
320 0

340 0
360 0

DA-M6:LEU-S2

20 0
40 0
60 0
80 0

100 0
120 0
140 0

160 0
180 0
200 0

220 0
240 0
260 0

280 0
300 0
320 0

340 0
360 0

GTP-M6:SER-S1

20 0
40 0
60 0
80 0

100 0
120 0
140 0

160 0
180 0
200 0

220 0
240 0
260 0

280 0
300 0
320 0

340 0
360 0
U-RIB:ALA-CA

20 0
40 2
60 3
80 5
100 5
120 5
140 4
160 3
180 1
200 0
220 2
240 3
260 5
280 5
300 5
320 4
340 3
360 1

U-Y:GLU-S2

20 0
40 1
60 3
80 5
100 5
120 4
140 3
160 2
180 1
200 0
220 0
240 3
260 5
280 5
300 4
320 0
340 3
360 0

C31-P:PHE-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0

360 0
G-RIB:LEU-S2

20 0
40 0
60 9
80 12
100 13
120 12
140 9
160 7
180 2
200 1
220 5
240 9
260 12
280 13
300 12
320 10
340 7
360 3

QUO-M5:ASN-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-P:ASN-S2

20 0
40 1
60 3
80 4
100 4
120 4
140 3
160 2
180 1
200 0
220 0
240 3
260 4
280 4
300 4
320 3
340 2
360 0

C-P:ASN-CA

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	3
340	2
360	0

A-R6:MET-S1

20	0
40	0
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	0
240	2
260	0
280	3
300	2
320	2
340	1
360	0

C-P:CYS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	1
280	1
300	0
320	0
340	0
360	0

H2U-RIB:TRP-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U34-P:GLU-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

DA-M5:THR-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-RIB:TRP-CA

20 0

40	0
60	0
80	1
100	1
120	1
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	1
300	0
320	0
340	0
360	0

C-Y:TRP-S1

20	0
40	0
60	0
80	1
100	1
120	1
140	0
160	0
180	0
200	0
220	0
240	0
260	1
280	1
300	0
320	1
340	0
360	0

IU-MY:ARG-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:TRP-S2

20	0
40	0

60	1
80	1
100	1
120	0
140	1
160	0
180	0
200	0
220	0
240	1
260	0
280	1
300	1
320	1
340	0
360	0
C-RIB:ASN-CA	
20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	3
340	2
360	0
A-P:PHE-S1	
20	0
40	0
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1
H2U-P:TRP-S2	
20	0
40	0
60	0

80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-RIB:GLU-S1

20	0
40	0
60	8
80	11
100	12
120	11
140	9
160	6
180	2
200	1
220	4
240	8
260	11
280	12
300	11
320	9
340	7
360	2

A-R5:GLN-S2

20	0
40	1
60	3
80	4
100	4
120	3
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	0

C31-RIB:LEU-CA

20	0
40	0
60	0
80	0

100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-Y:SER-CA

20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	2
180	1
200	0
220	2
240	3
260	5
280	5
300	4
320	4
340	3
360	0

A-R6:CYS-CA

20	0
40	0
60	0
80	1
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	1
300	1
320	0
340	0
360	0

A-R6:PRO-CA

20	0
40	0
60	3
80	5
100	5

120	5
140	4
160	3
180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

DA-M6:HIS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:LEU-CA

20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	0
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	2

FMU-MY:ARG-S2

20	0
40	0
60	0
80	0
100	0
120	0

140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U31-MY:TYR-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

DA-M6:ASN-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

IU-MY:ARG-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0

160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-P:ASP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:HIS-S2

20	0
40	0
60	1
80	1
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	1
280	1
300	1
320	1
340	0
360	0

A-R5:HIS-S2

20	0
40	1
60	2
80	2
100	2
120	2
140	2
160	1

180	0
200	0
220	1
240	2
260	2
280	2
300	2
320	2
340	1
360	0

GTP-M5:GLY-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:ALA-S1

20	0
40	2
60	5
80	7
100	8
120	7
140	5
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

U34-P:ASN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0

200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M5:LYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

IU-P:LYS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M5:LYS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0

220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C31-MY:GLN-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-P:LYS-S1

20 0
40 3
60 5
80 7
100 8
120 7
140 6
160 4
180 1
200 0
220 0
240 5
260 8
280 8
300 7
320 6
340 4
360 1

G-P:TYR-CA

20 0
40 0
60 3
80 4
100 4
120 4
140 3
160 2
180 1
200 0
220 0

240	3
260	4
280	4
300	4
320	3
340	2
360	0
U-RIB:LEU-CA	
20	0
40	0
60	4
80	0
100	5
120	5
140	4
160	3
180	1
200	0
220	0
240	4
260	5
280	5
300	5
320	4
340	3
360	0
U34-P:TYR-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
G-RIB:MET-S2	
20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	0
240	2

260	3
280	3
300	3
320	3
340	2
360	0

G-R5:GLN-CA

20	0
40	1
60	3
80	5
100	0
120	0
140	4
160	0
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	0
360	0

H2U-RIB:GLU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:PHE-S2

20	0
40	1
60	0
80	4
100	4
120	4
140	0
160	0
180	1
200	0
220	1
240	0
260	4

280	4
300	4
320	0
340	0
360	1

G-P:LEU-CA

20	0
40	0
60	9
80	12
100	13
120	12
140	9
160	7
180	2
200	0
220	0
240	9
260	12
280	13
300	12
320	10
340	7
360	3

C-P:ASP-CA

20	0
40	0
60	4
80	5
100	6
120	5
140	4
160	3
180	0
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	0

H2U-MY:LEU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0

300 0
320 0
340 0
360 0

C-P:MET-CA

20 0
40 0
60 1
80 2
100 2
120 2
140 1
160 0
180 0
200 0
220 0
240 1
260 2
280 2
300 2
320 1
340 1
360 0

FHU-MY:ILE-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-RIB:MET-CA

20 0
40 0
60 0
80 2
100 2
120 2
140 1
160 0
180 0
200 0
220 0
240 1
260 2
280 2
300 2

320 1
340 0
360 0

H2U-RIB:PRO-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

H2U-P:PRO-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-R5:ASP-S1

20 0
40 2
60 5
80 6
100 0
120 6
140 5
160 4
180 0
200 0
220 2
240 5
260 7
280 7
300 6
320 5

340 4
360 1
C31-RIB:THR-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-RIB:LEU-CA

20 0
40 4
60 9
80 12
100 13
120 12
140 9
160 7
180 2
200 0
220 5
240 9
260 12
280 13
300 12
320 10
340 7
360 3

FMU-RIB:ARG-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0

360 0
G-P:GLN-S2

20 0
40 1
60 3
80 5
100 5
120 4
140 3
160 2
180 1
200 0
220 2
240 3
260 5
280 5
300 4
320 4
340 3
360 1

U-P:SER-S1

20 0
40 1
60 2
80 3
100 3
120 3
140 2
160 2
180 0
200 0
220 1
240 2
260 3
280 3
300 3
320 2
340 2
360 0

U31-P:MET-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-RIB:PHE-CA

20	0
40	2
60	4
80	5
100	5
120	5
140	4
160	3
180	0
200	0
220	0
240	4
260	5
280	5
300	5
320	4
340	3
360	1

QUO-RIB:LYS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:ASN-S2

20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	0
360	1

G-R5:LYS-CA

20	1
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	2

G-R5:VAL-S1

20	0
40	4
60	7
80	10
100	11
120	10
140	8
160	0
180	2
200	1
220	4
240	7
260	10
280	11
300	10
320	8
340	0
360	0

A-R5:GLN-CA

20	0
40	0
60	3
80	4
100	4
120	3
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	0
360	0

A-P:TYR-S1

20	0
----	---

40	0
60	2
80	3
100	4
120	3
140	2
160	2
180	0
200	0
220	0
240	2
260	3
280	4
300	3
320	3
340	2
360	0

C-P:HIS-CA

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0

A-R5:SER-S1

20	0
40	2
60	4
80	6
100	6
120	6
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	0

QUO-M5:PHE-S1

20	0
40	0

60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-MY:ARG-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:GLN-CA

20	0
40	1
60	3
80	5
100	5
120	4
140	0
160	3
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	0
340	0
360	0

H2U-MY:PHE-S2

20	0
40	0
60	0

80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:ALA-S1

20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	0
240	7
260	9
280	10
300	9
320	7
340	5
360	2

G-R6:ASP-CA

20	0
40	3
60	6
80	8
100	9
120	8
140	6
160	5
180	2
200	0
220	3
240	6
260	8
280	9
300	8
320	7
340	5
360	2

A-R6:ASN-S2

20	0
40	1
60	3
80	4

100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

U-P:TYR-S1

20	0
40	0
60	1
80	2
100	2
120	1
140	1
160	0
180	0
200	0
220	0
240	0
260	2
280	2
300	2
320	0
340	0
360	0

GTP-M5:ASP-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:GLU-S2

20	1
40	4
60	8
80	11
100	12

120	11
140	8
160	6
180	2
200	0
220	4
240	8
260	11
280	12
300	11
320	9
340	7
360	2

QUO-M6:PHE-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-Y:GLU-S1

20	0
40	2
60	5
80	7
100	7
120	0
140	5
160	4
180	1
200	0
220	3
240	5
260	7
280	7
300	0
320	6
340	4
360	0

QUO-M6:LEU-S1

20	0
40	0
60	0
80	0
100	0
120	0

140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-P:LEU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-RIB:ALA-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:GLN-S2

20	0
40	0
60	1
80	2
100	2
120	2
140	1

160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0

A-R6:LEU-CA

20	0
40	3
60	7
80	10
100	10
120	9
140	7
160	0
180	2
200	0
220	4
240	0
260	10
280	10
300	9
320	8
340	6
360	0

A-RIB:PHE-CA

20	0
40	0
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	0
240	3
260	4
280	4
300	4
320	3
340	2
360	1

A-P:CYS-CA

20	0
40	0
60	0
80	1
100	1
120	1
140	0
160	0

180	0
200	0
220	0
240	0
260	1
280	1
300	0
320	0
340	0
360	0

FMU-MY:PHE-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-RIB:ASN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:ARG-CA

20	0
40	0
60	5
80	7
100	8
120	7
140	6
160	4
180	0

200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	0

C-Y:ARG-S1

20	0
40	2
60	4
80	6
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

U34-MY:ASN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:MET-S2

20	0
40	1
60	2
80	3
100	3
120	3
140	0
160	0
180	0
200	0

220	0
240	2
260	3
280	3
300	3
320	3
340	2
360	0

G-P:GLY-CA

20	1
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	2

A-R6:TRP-S2

20	0
40	0
60	1
80	1
100	1
120	1
140	0
160	0
180	0
200	0
220	0
240	1
260	1
280	0
300	1
320	1
340	0
360	0

IU-P:ARG-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0

240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M6:ARG-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-RIB:TYR-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:ASN-CA

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	1
240	1

260	2
280	2
300	2
320	2
340	1
360	0

FMU-MY:ASN-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-RIB:GLN-S2

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	1
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	1
360	0

G-R5:CYS-CA

20	0
40	0
60	0
80	1
100	0
120	1
140	0
160	0
180	0
200	0
220	0
240	0
260	1

280	0
300	0
320	0
340	0
360	0

U-P:ASP-S2

20	0
40	0
60	2
80	3
100	4
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	4
300	3
320	3
340	2
360	0

IU-RIB:ARG-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-RIB:LEU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0

300 0
320 0
340 0
360 0

C-P:TRP-S2

20 0
40 0
60 0
80 1
100 1
120 1
140 0
160 0
180 0
200 0
220 0
240 0
260 1
280 0
300 1
320 0
340 0
360 0

U31-MY:GLN-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

IU-RIB:LYS-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0

320 0
340 0
360 0

A-RIB:ARG-S1

20 0
40 2
60 5
80 7
100 8
120 7
140 6
160 4
180 1
200 0
220 3
240 5
260 7
280 8
300 7
320 6
340 4
360 1

A-R6:TYR-S1

20 0
40 0
60 2
80 3
100 4
120 3
140 2
160 2
180 0
200 0
220 0
240 2
260 3
280 4
300 3
320 3
340 2
360 0

G-P:VAL-CA

20 0
40 4
60 7
80 10
100 11
120 10
140 8
160 6
180 2
200 0
220 4
240 0
260 10
280 11
300 10
320 8

340 6
360 0
U31-P:GLN-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

DA-M5:MET-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

QUO-M6:LEU-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0

360 0
U-Y:SER-S1

20 0
40 1
60 2
80 3
100 3
120 3
140 2
160 2
180 0
200 0
220 1
240 2
260 3
280 3
300 3
320 2
340 2
360 0

U-P:THR-S1

20 0
40 1
60 2
80 3
100 3
120 3
140 2
160 1
180 0
200 0
220 1
240 2
260 3
280 3
300 3
320 2
340 1
360 0

C31-P:GLN-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-Y:GLY-CA

20	0
40	2
60	4
80	6
100	6
120	6
140	5
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	0
360	1

U-RIB:ILE-CA

20	0
40	0
60	0
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	0
260	3
280	3
300	3
320	2
340	2
360	0

5BU-P:THR-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-P:THR-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:HIS-S1

20	0
40	1
60	2
80	2
100	2
120	2
140	0
160	1
180	0
200	0
220	1
240	2
260	2
280	2
300	2
320	2
340	0
360	0

A-P:ARG-S1

20	0
40	2
60	5
80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

C-Y:PRO-CA

20	0
----	---

40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	0
U31-RIB:TYR-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
FHU-P:TYR-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
QUO-M6:LEU-CA	
20	0
40	0

60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M6:ASP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-MY:ALA-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:SER-CA

20	0
40	3
60	5

80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	0

A-RIB:LEU-S2

20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	0
240	7
260	10
280	10
300	9
320	8
340	6
360	2

G-RIB:ARG-S1

20	1
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	3
240	7
260	9
280	10
300	9
320	8
340	5
360	2

U-Y:ALA-CA

20	0
40	2
60	3
80	5

100	5
120	5
140	4
160	3
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	0

U-Y:TYR-CA

20	0
40	0
60	1
80	2
100	2
120	0
140	1
160	0
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0

OMC-P:LYS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-RIB:LYS-S2

20	1
40	3
60	7
80	9
100	10

120	9
140	7
160	5
180	2
200	0
220	4
240	7
260	9
280	10
300	9
320	8
340	6
360	2

G-R5:HIS-S2

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	0
340	2
360	0

C-RIB:ARG-S2

20	0
40	2
60	4
80	6
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

G-RIB:PRO-S1

20	0
40	2
60	4
80	6
100	7
120	6

140	5
160	3
180	1
200	0
220	2
240	4
260	6
280	7
300	6
320	5
340	4
360	1

FMU-RIB:GLN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:LEU-S2

20	0
40	4
60	9
80	12
100	13
120	11
140	9
160	7
180	2
200	0
220	5
240	9
260	12
280	13
300	12
320	10
340	7
360	3

A-P:GLU-S2

20	0
40	3
60	6
80	9
100	9
120	8
140	7

160	5
180	2
200	0
220	3
240	6
260	9
280	9
300	9
320	7
340	5
360	2

FHU-RIB:TYR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

IU-MY:PRO-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:GLN-S2

20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	0

180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	0

C-RIB:ILE-S1

20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	3
180	0
200	0
220	0
240	3
260	5
280	5
300	5
320	4
340	3
360	0

C-P:ALA-CA

20	0
40	2
60	5
80	7
100	8
120	7
140	5
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	0

QUO-M5:ASN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0

200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

IU-RIB:PRO-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

IU-MY:ILE-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C31-RIB:PHE-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0

220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:GLU-S1

20	0
40	4
60	8
80	11
100	12
120	11
140	9
160	6
180	2
200	0
220	4
240	8
260	11
280	12
300	11
320	9
340	7
360	2

U31-P:SER-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-RIB:GLU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0

240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-RIB:LYS-S1

20 1
40 3
60 7
80 9
100 10
120 9
140 7
160 5
180 2
200 0
220 4
240 7
260 10
280 10
300 9
320 8
340 6
360 2

FHU-P:ASP-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FMU-MY:SER-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0

260	0
280	0
300	0
320	0
340	0
360	0

A-P:SER-S1

20	0
40	2
60	4
80	6
100	6
120	6
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

DA-M6:ASN-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-MY:GLU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0

280 0
300 0
320 0
340 0
360 0

DA-M6:SER-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

H2U-MY:LYS-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-R6:ILE-CA

20 0
40 2
60 4
80 6
100 0
120 6
140 4
160 3
180 1
200 0
220 0
240 4
260 6
280 6

300 6
320 5
340 3
360 1

U-RIB:LYS-S1

20 0
40 1
60 3
80 4
100 4
120 4
140 3
160 2
180 1
200 0
220 1
240 3
260 4
280 4
300 4
320 3
340 2
360 1

U-RIB:HIS-S1

20 0
40 0
60 1
80 1
100 1
120 1
140 1
160 0
180 0
200 0
220 0
240 0
260 1
280 1
300 1
320 1
340 0
360 0

C-Y:TYR-S1

20 0
40 0
60 2
80 2
100 3
120 2
140 2
160 0
180 0
200 0
220 0
240 2
260 2
280 3
300 2

320 2
340 1
360 0

G-RIB:LEU-S1

20 0
40 4
60 9
80 12
100 13
120 12
140 9
160 7
180 2
200 0
220 5
240 9
260 12
280 13
300 12
320 10
340 7
360 3

G-R6:MET-S1

20 0
40 1
60 0
80 3
100 3
120 3
140 0
160 0
180 0
200 0
220 1
240 2
260 3
280 3
300 3
320 3
340 2
360 0

A-R5:GLU-CA

20 1
40 3
60 0
80 9
100 9
120 8
140 7
160 5
180 2
200 0
220 3
240 6
260 9
280 9
300 9
320 7

340 0
360 2
U-RIB:TRP-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-P:ARG-CA

20 0
40 2
60 5
80 7
100 8
120 7
140 6
160 4
180 1
200 0
220 3
240 5
260 7
280 8
300 7
320 6
340 4
360 1

U-P:GLU-S2

20 0
40 1
60 3
80 4
100 5
120 4
140 3
160 2
180 1
200 0
220 2
240 3
260 5
280 5
300 4
320 4
340 3

360 1
QUO-M6:GLU-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-P:ASP-S2

20 0
40 2
60 5
80 6
100 7
120 6
140 5
160 4
180 0
200 0
220 0
240 5
260 6
280 7
300 6
320 5
340 4
360 1

U31-P:HIS-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

H2U-MY:ARG-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:GLN-CA

20	0
40	1
60	3
80	5
100	5
120	4
140	4
160	3
180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

C-P:TYR-CA

20	0
40	0
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	0
240	0
260	2
280	3
300	2
320	2
340	1
360	0

G-R6:ARG-S2

20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	3
240	7
260	9
280	10
300	9
320	8
340	5
360	2

C-P:SER-S1

20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	2
180	1
200	0
220	2
240	3
260	5
280	5
300	4
320	4
340	3
360	1

G-R6:CYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	1
160	0
180	0
200	0
220	0
240	1
260	0
280	0
300	1
320	0
340	0
360	0

G-RIB:GLN-S2

20	0
----	---

40	1
60	3
80	5
100	5
120	4
140	3
160	3
180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

C-RIB:ALA-CA

20	0
40	2
60	5
80	7
100	8
120	7
140	5
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

U34-P:ARG-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:THR-CA

20	0
40	2

60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	0

C-Y: ILE-CA

20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	3
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	0

U-P: LYS-S1

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

FMU-MY: MET-S1

20	0
40	0
60	0

80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:LEU-S1

20	1
40	4
60	9
80	12
100	0
120	12
140	9
160	7
180	0
200	0
220	5
240	9
260	12
280	13
300	12
320	10
340	0
360	0

C31-RIB:ASP-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-MY:TYR-S1

20	0
40	0
60	0
80	0

100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:GLN-CA

20	0
40	0
60	3
80	4
100	4
120	3
140	3
160	2
180	0
200	0
220	0
240	3
260	4
280	0
300	4
320	3
340	2
360	0

FHU-P:VAL-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:LEU-S1

20	0
40	3
60	7
80	10
100	10

120	9
140	0
160	5
180	0
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	0

PSU-RIB:ARG-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:THR-CA

20	0
40	2
60	5
80	7
100	7
120	6
140	5
160	4
180	1
200	0
220	2
240	5
260	7
280	7
300	7
320	5
340	4
360	1

IU-MY:ALA-CA

20	0
40	0
60	0
80	0
100	0
120	0

140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-Y:GLU-CA

20	0
40	2
60	5
80	7
100	0
120	7
140	5
160	4
180	1
200	0
220	3
240	5
260	7
280	7
300	7
320	0
340	4
360	0

IU-P:HIS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-Y:VAL-CA

20	0
40	2
60	5
80	6
100	7
120	6
140	5

160	3
180	0
200	0
220	2
240	4
260	6
280	7
300	6
320	5
340	0
360	0

U-P:SER-CA

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	2
360	0

U-RIB:ASP-S2

20	0
40	1
60	2
80	3
100	4
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	4
300	3
320	3
340	2
360	0

C31-P:PHE-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0

180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-MY:LEU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

IU-RIB:ILE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:ASP-S2

20	0
40	0
60	5
80	6
100	7
120	6
140	5
160	4
180	1

200	0
220	2
240	5
260	6
280	7
300	6
320	5
340	4
360	0

H2U-MY:GLU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M6:ARG-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:SER-CA

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	0
200	0

220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

A-P:CYS-S1

20	0
40	0
60	0
80	0
100	1
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	1
280	1
300	1
320	0
340	0
360	0

A-R5:TYR-S1

20	0
40	1
60	2
80	3
100	4
120	3
140	2
160	0
180	0
200	0
220	1
240	2
260	3
280	4
300	3
320	3
340	2
360	0

IU-P:SER-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0

240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-RIB:THR-CA

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

FHU-P:LYS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:THR-CA

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	1
180	0
200	0
220	1
240	2

260	3
280	3
300	3
320	2
340	1
360	0

G-R5:ASP-S1

20	0
40	3
60	6
80	8
100	9
120	8
140	6
160	5
180	0
200	0
220	3
240	6
260	8
280	9
300	8
320	7
340	5
360	2

C-RIB:GLY-CA

20	0
40	2
60	4
80	6
100	6
120	6
140	5
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

G-P:PRO-CA

20	0
40	2
60	4
80	6
100	7
120	6
140	5
160	3
180	1
200	0
220	2
240	4
260	6

280 7
300 6
320 5
340 4
360 1

G-R6:ILE-CA

20 0
40 0
60 5
80 0
100 8
120 7
140 0
160 4
180 1
200 0
220 0
240 5
260 7
280 8
300 7
320 6
340 0
360 0

FHU-MY:THR-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-R5:ALA-CA

20 1
40 3
60 7
80 9
100 10
120 9
140 7
160 5
180 0
200 0
220 3
240 7
260 9
280 10

300 9
320 7
340 5
360 2

A-R6:TYR-CA

20 0
40 1
60 2
80 3
100 4
120 3
140 0
160 2
180 0
200 0
220 1
240 2
260 3
280 4
300 3
320 3
340 2
360 0

QUO-M5:ARG-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-R6:TRP-CA

20 0
40 0
60 1
80 1
100 1
120 1
140 0
160 0
180 0
200 0
220 0
240 1
260 1
280 1
300 1

320	0
340	0
360	0
G-R6:HIS-S1	
20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	0
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	0
360	0
C31-P:TYR-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U-P:MET-CA	
20	0
40	0
60	1
80	0
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	0
280	1
300	1
320	1

340	0
360	0
DA-M5:ASP-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
FHU-P:PRO-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U-P:ASP-S1	
20	0
40	0
60	2
80	3
100	4
120	3
140	3
160	0
180	0
200	0
220	1
240	2
260	3
280	4
300	3
320	3
340	2

360 0
A-R5:ALA-S1
20 1
40 3
60 7
80 9
100 10
120 9
140 7
160 5
180 2
200 0
220 3
240 7
260 9
280 10
300 9
320 7
340 5
360 0
QUO-RIB:PHE-S1
20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0
C31-P:ASN-S2
20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-R5:LYS-CA

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	8
280	8
300	7
320	6
340	4
360	0

U34-P:TYR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-MY:ALA-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:LEU-S1

20	0
40	4
60	9
80	12
100	13
120	12
140	9
160	7
180	0
200	1
220	5
240	9
260	12
280	13
300	12
320	10
340	7
360	0

IU-RIB:GLN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:ARG-S2

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

U-P:PHE-CA

20	0
----	---

40	0
60	1
80	2
100	0
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	0
320	2
340	0
360	0

C31-MY:GLN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:ASN-CA

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

FHU-RIB:PRO-S1

20	0
40	0

60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:HIS-S2

20	0
40	1
60	2
80	2
100	2
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	2
300	2
320	2
340	1
360	0

IU-MY:LYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:THR-S1

20	0
40	2
60	4

80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	1

U-P:MET-S1

20	0
40	0
60	1
80	1
100	1
120	1
140	0
160	0
180	0
200	0
220	0
240	1
260	1
280	1
300	1
320	1
340	0
360	0

I-RIB:TRP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U34-RIB:ASN-CA

20	0
40	0
60	0
80	0

100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

GTP-M5:ALA-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

IU-P:ASP-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FHU-P:LYS-S1

20 0
40 0
60 0
80 0
100 0

120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:LYS-S2

20	1
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	4
240	7
260	9
280	10
300	9
320	8
340	6
360	2

G-R5:ARG-S2

20	1
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	3
240	7
260	9
280	10
300	9
320	8
340	5
360	2

G-P:HIS-S1

20	0
40	1
60	2
80	3
100	3
120	3

140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	2
360	0

IU-MY:LYS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:ALA-CA

20	0
40	2
60	3
80	5
100	5
120	5
140	4
160	3
180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

C31-MY:THR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0

160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:LEU-CA

20	1
40	3
60	7
80	10
100	10
120	9
140	7
160	5
180	0
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	0

G-R6:GLN-S1

20	0
40	1
60	3
80	5
100	5
120	4
140	0
160	3
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	0
360	0

C31-RIB:THR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0

180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U34-P:SER-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:LYS-S2

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	0
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	0

FMU-MY:PRO-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0

200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

I-RIB:ALA-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

IU-MY:PRO-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:MET-CA

20	0
40	0
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0

220	0
240	2
260	2
280	3
300	2
320	2
340	0
360	0

DA-M6:TYR-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:PRO-CA

20	0
40	0
60	3
80	5
100	5
120	5
140	4
160	3
180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

IU-MY:LEU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0

240	0
260	0
280	0
300	0
320	0
340	0
360	0

5BU-P:PRO-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

DA-M6:TYR-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:MET-CA

20	0
40	0
60	2
80	3
100	3
120	3
140	2
160	0
180	0
200	0
220	1
240	2

260	3
280	3
300	3
320	2
340	2
360	0

U31-MY:ASP-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:TRP-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U34-MY:ASP-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0

280	0
300	0
320	0
340	0
360	0

A-RIB:TYR-S2

20	0
40	1
60	2
80	3
100	4
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	4
300	3
320	3
340	0
360	0

FHU-P:SER-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:GLY-CA

20	0
40	3
60	6
80	8
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	8
280	8

300 7
320 6
340 4
360 1

C-P:LEU-S1

20 0
40 3
60 5
80 7
100 8
120 7
140 6
160 4
180 1
200 0
220 3
240 5
260 8
280 8
300 7
320 6
340 4
360 1

IU-RIB:HIS-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

QUO-M6:ASN-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0

320 0
340 0
360 0
U-Y:PRO-CA

20 0
40 1
60 2
80 2
100 3
120 2
140 2
160 1
180 0
200 0
220 0
240 2
260 2
280 3
300 2
320 2
340 1
360 0

G-P:ALA-CA

20 0
40 0
60 8
80 11
100 12
120 11
140 9
160 6
180 0
200 0
220 4
240 8
260 11
280 12
300 11
320 9
340 7
360 2

G-R6:PHE-S1

20 0
40 0
60 4
80 5
100 5
120 5
140 4
160 3
180 0
200 0
220 2
240 4
260 5
280 5
300 5
320 0

340 0
360 0
U31-P:SER-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FMU-MY:ASN-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U31-P:HIS-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0

360 0
QUO-M5:ASP-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U31-P:LEU-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-P:THR-S1

20 0
40 2
60 4
80 5
100 6
120 5
140 4
160 3
180 1
200 0
220 2
240 4
260 5
280 6
300 5
320 4
340 3
360 1

FHU-RIB:LYS-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U-RIB:THR-S1

20 0
40 1
60 2
80 3
100 3
120 3
140 2
160 1
180 0
200 0
220 1
240 2
260 3
280 3
300 3
320 2
340 1
360 0

A-R6:GLN-S1

20 0
40 1
60 3
80 4
100 4
120 3
140 3
160 2
180 0
200 0
220 1
240 3
260 4
280 4
300 4
320 3
340 2
360 1

M2G-P:GLY-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:HIS-CA

20	0
40	0
60	1
80	0
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	0
280	1
300	1
320	1
340	0
360	0

FMU-RIB:CYS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-RIB:PHE-S1

20	0
----	---

40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
G-RIB:HIS-CA	
20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	0
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	2
360	0
A-RIB:LYS-CA	
20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	8
280	8
300	7
320	6
340	4
360	1
U-P:ASN-CA	
20	0
40	0

60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	2
340	1
360	0
G-RIB:TRP-S1	
20	0
40	0
60	1
80	1
100	2
120	1
140	1
160	1
180	0
200	0
220	0
240	1
260	1
280	2
300	1
320	1
340	1
360	0
5BU-MY:ARG-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
G-RIB:GLN-CA	
20	0
40	1
60	3

80	5
100	5
120	4
140	4
160	3
180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

G-R5:GLU-CA

20	1
40	4
60	8
80	11
100	12
120	11
140	9
160	6
180	2
200	0
220	4
240	8
260	11
280	12
300	11
320	9
340	7
360	2

A-R5:ASN-S2

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

U34-P:HIS-S2

20	0
40	0
60	0
80	0

100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:ALA-CA

20	0
40	3
60	7
80	9
100	10
120	9
140	0
160	5
180	2
200	0
220	3
240	7
260	0
280	10
300	9
320	7
340	5
360	2

GTP-M5:SER-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-RIB:GLU-CA

20	0
40	1
60	3
80	5
100	5

120	4
140	4
160	3
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

C-Y:ASP-S2

20	0
40	2
60	4
80	5
100	5
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	5
300	5
320	4
340	3
360	0

DA-M5:LYS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

5BU-RIB:PRO-S1

20	0
40	0
60	0
80	0
100	0
120	0

140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-Y:LEU-S2

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	0
180	1
200	0
220	3
240	5
260	8
280	8
300	7
320	0
340	0
360	0

C-Y:PHE-S2

20	0
40	0
60	2
80	3
100	3
120	3
140	2
160	0
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	0
340	0
360	0

G-R6:TYR-S1

20	0
40	0
60	3
80	4
100	5
120	4
140	0

160	2
180	0
200	0
220	1
240	0
260	4
280	5
300	4
320	3
340	2
360	1

G-RIB:ALA-S1

20	1
40	4
60	8
80	11
100	12
120	11
140	9
160	7
180	2
200	1
220	4
240	8
260	11
280	12
300	11
320	10
340	7
360	2

C-P:ASN-S2

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	3
340	2
360	0

A-P:LYS-CA

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4

180	1
200	0
220	3
240	5
260	8
280	8
300	7
320	6
340	4
360	1

DA-M5:GLU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M5:GLN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M6:GLU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0

200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:LEU-S1

20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	0

G-R6:ASN-CA

20	0
40	0
60	4
80	5
100	6
120	5
140	4
160	3
180	0
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	1

FMU-RIB:ARG-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0

220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U-RIB:LEU-S1	
20	0
40	0
60	4
80	5
100	5
120	5
140	4
160	3
180	1
200	0
220	0
240	0
260	5
280	5
300	5
320	4
340	3
360	1
QUO-P:SER-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
C-Y:GLN-S2	
20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	0
180	0
200	0
220	1

240	2
260	3
280	3
300	3
320	0
340	1
360	0

QUO-RIB:ASN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:TYR-S2

20	0
40	1
60	2
80	3
100	4
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	4
300	3
320	0
340	2
360	0

U-P:PHE-S2

20	0
40	0
60	1
80	0
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1

260	2
280	2
300	2
320	0
340	0
360	0

A-P:TRP-CA

20	0
40	0
60	1
80	1
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	0
260	1
280	1
300	1
320	1
340	0
360	0

U31-MY:PHE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:LEU-CA

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	0
200	0
220	3
240	5
260	8

280	8
300	7
320	6
340	4
360	1

FMU-RIB:HIS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:ASP-CA

20	0
40	3
60	6
80	8
100	9
120	0
140	6
160	5
180	0
200	0
220	3
240	6
260	8
280	9
300	8
320	7
340	5
360	0

U34-MY:PHE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0

300	0
320	0
340	0
360	0

G-R5:TYR-CA

20	0
40	1
60	0
80	4
100	0
120	4
140	3
160	2
180	1
200	0
220	0
240	3
260	4
280	0
300	4
320	3
340	0
360	0

G-RIB:TYR-S1

20	0
40	0
60	3
80	4
100	5
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	5
300	4
320	0
340	2
360	0

5BU-P:SER-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0

320 0
340 0
360 0
C-RIB:ASP-CA

20 0
40 2
60 4
80 5
100 6
120 5
140 4
160 3
180 1
200 0
220 2
240 4
260 5
280 6
300 5
320 4
340 3
360 1

A-R6:GLY-CA

20 0
40 3
60 6
80 8
100 8
120 7
140 6
160 4
180 0
200 0
220 3
240 5
260 8
280 8
300 8
320 6
340 4
360 1

U-Y:ARG-S2

20 0
40 1
60 3
80 4
100 4
120 4
140 3
160 2
180 0
200 0
220 1
240 3
260 4
280 4
300 4
320 3

340 2
360 1
A-R6:VAL-S1

20 0
40 3
60 6
80 8
100 9
120 8
140 6
160 4
180 0
200 0
220 3
240 6
260 8
280 9
300 8
320 7
340 5
360 0

A-P:GLN-CA

20 0
40 0
60 3
80 4
100 4
120 3
140 3
160 2
180 0
200 0
220 1
240 3
260 4
280 4
300 4
320 3
340 2
360 1

FMU-P:ARG-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0

360 0
QUO-M5:ASP-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FHU-MY:LEU-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-R6:GLN-S2

20 0
40 1
60 3
80 4
100 4
120 3
140 3
160 2
180 0
200 0
220 1
240 3
260 4
280 4
300 4
320 3
340 2
360 0

U-RIB:PHE-CA

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	0
280	2
300	2
320	2
340	1
360	0

G-P:MET-S1

20	0
40	0
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	0
240	2
260	3
280	3
300	3
320	2
340	2
360	0

G-RIB:ALA-CA

20	1
40	4
60	8
80	11
100	12
120	11
140	9
160	7
180	2
200	1
220	4
240	8
260	11
280	12
300	11
320	10
340	7
360	2

U-RIB:ILE-S1

20	0
40	0
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	0
320	2
340	2
360	0

U-P:MET-S2

20	0
40	0
60	1
80	1
100	1
120	0
140	1
160	0
180	0
200	0
220	0
240	1
260	1
280	1
300	1
320	1
340	0
360	0

OMC-P:LYS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:LEU-S1

20	0
----	---

40	2
60	4
80	5
100	5
120	5
140	4
160	3
180	1
200	0
220	0
240	4
260	5
280	5
300	5
320	4
340	3
360	0

IU-P:HIS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

DA-M6:LYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:GLN-S1

20	0
40	0

60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0

U31-RIB:PHE-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:PHE-S1

20	0
40	1
60	3
80	0
100	4
120	4
140	0
160	0
180	0
200	0
220	0
240	0
260	4
280	4
300	4
320	0
340	0
360	0

G-R5:PRO-CA

20	0
40	2
60	4

80	6
100	7
120	6
140	5
160	0
180	0
200	0
220	2
240	4
260	6
280	7
300	6
320	5
340	4
360	1

A-R5:ASP-CA

20	0
40	2
60	5
80	6
100	7
120	6
140	5
160	4
180	0
200	0
220	0
240	5
260	7
280	7
300	6
320	5
340	4
360	0

G-R5:HIS-S1

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	0
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	0
360	0

C31-P:ALA-S1

20	0
40	0
60	0
80	0

100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

IU-RIB:GLN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:PHE-S2

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	0
240	0
260	4
280	4
300	4
320	0
340	2
360	1

FMU-P:CYS-S1

20	0
40	0
60	0
80	0
100	0

120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:TRP-CA

20	0
40	0
60	0
80	1
100	0
120	1
140	0
160	0
180	0
200	0
220	0
240	0
260	1
280	1
300	0
320	1
340	0
360	0

FMU-MY:GLU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:GLU-CA

20	0
40	4
60	8
80	11
100	12
120	11

140	9
160	6
180	2
200	0
220	4
240	8
260	11
280	12
300	11
320	9
340	7
360	2

A-R6:ASN-CA

20	0
40	0
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	0

A-R6:ASP-CA

20	0
40	2
60	5
80	6
100	7
120	6
140	5
160	4
180	0
200	0
220	0
240	5
260	7
280	7
300	6
320	5
340	4
360	1

C-Y:ASN-S1

20	0
40	1
60	2
80	3
100	0
120	3
140	2

160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	0
340	2
360	0

FHU-MY:TYR-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

5BU-P:ARG-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:ALA-S1

20	0
40	2
60	3
80	5
100	5
120	5
140	4
160	3

180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

H2U-P:ARG-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:CYS-S1

20	0
40	0
60	0
80	1
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	1
300	1
320	0
340	0
360	0

G-R5:TRP-S2

20	0
40	0
60	0
80	1
100	2
120	1
140	1
160	1
180	0

200	0
220	0
240	1
260	1
280	0
300	1
320	1
340	0
360	0

H2U-MY:TRP-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

IU-MY:ALA-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-P:PHE-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0

220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-MY:PRO-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:HIS-S1

20	0
40	0
60	1
80	1
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	0
280	1
300	1
320	1
340	0
360	0

G-R6:ALA-S1

20	1
40	4
60	8
80	11
100	12
120	11
140	9
160	7
180	2
200	0
220	4

240	8
260	11
280	12
300	11
320	10
340	7
360	0

C-P:THR-CA

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

A-RIB:ASP-S1

20	0
40	0
60	0
80	6
100	7
120	6
140	5
160	4
180	0
200	0
220	0
240	5
260	7
280	7
300	6
320	5
340	4
360	1

U31-P:ARG-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0

260	0
280	0
300	0
320	0
340	0
360	0

C31-P:TYR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-RIB:LYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:VAL-S1

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4

280	4
300	4
320	3
340	2
360	0

IU-P:ILE-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

IU-MY:VAL-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-P:ASN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0

300	0
320	0
340	0
360	0
FMU-P:PHE-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
H2U-P:LEU-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
A-R5:ILE-CA	
20	0
40	2
60	4
80	6
100	6
120	6
140	0
160	3
180	0
200	0
220	2
240	4
260	6
280	0
300	6

320	5
340	0
360	0
U-P:PRO-S1	
20	0
40	1
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	3
300	2
320	2
340	1
360	0
U-RIB:ASN-CA	
20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	1
240	1
260	2
280	2
300	2
320	2
340	1
360	0
C-RIB:GLU-S2	
20	0
40	0
60	5
80	7
100	7
120	7
140	5
160	4
180	1
200	0
220	0
240	5
260	7
280	7
300	7
320	6

340 4
360 1
QUO-RIB:ASN-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C31-MY:LEU-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-R6:PHE-S2

20 0
40 0
60 4
80 5
100 5
120 5
140 4
160 3
180 0
200 0
220 2
240 4
260 5
280 5
300 5
320 0
340 3

360	0
A-R6:PHE-S2	
20	0
40	1
60	0
80	4
100	4
120	4
140	3
160	0
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	0
340	2
360	0
DA-M6:HIS-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U-RIB:GLN-S1	
20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0

IU-MY:ILE-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-RIB:PRO-S1

20 0
40 2
60 3
80 5
100 5
120 5
140 4
160 3
180 1
200 0
220 0
240 3
260 5
280 5
300 5
320 4
340 3
360 1

DA-M6:MET-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-R6:LEU-S2

20	1
40	4
60	9
80	12
100	13
120	12
140	9
160	7
180	0
200	0
220	5
240	9
260	12
280	13
300	12
320	10
340	0
360	0

5BU-P:SER-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:ARG-CA

20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	3
240	7
260	9
280	10
300	9
320	8
340	5
360	0

IU-P:LEU-S1

20	0
----	---

40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:ASP-S1

20	0
40	3
60	6
80	8
100	9
120	8
140	6
160	5
180	2
200	0
220	3
240	6
260	8
280	9
300	8
320	7
340	5
360	2

G-R5:PRO-S1

20	0
40	2
60	4
80	6
100	7
120	6
140	5
160	3
180	0
200	0
220	2
240	4
260	6
280	7
300	6
320	5
340	4
360	0

A-R5:VAL-S1

20	0
40	3

60	6
80	8
100	9
120	8
140	6
160	4
180	0
200	0
220	3
240	6
260	8
280	9
300	8
320	7
340	5
360	0

G-RIB:TRP-S2

20	0
40	0
60	1
80	1
100	2
120	1
140	1
160	1
180	0
200	0
220	0
240	1
260	1
280	2
300	1
320	1
340	1
360	0

FHU-P:PRO-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-RIB:PHE-CA

20	0
40	0
60	0

80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

DA-M5:HIS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:GLU-S1

20	0
40	3
60	6
80	9
100	9
120	8
140	7
160	5
180	2
200	0
220	0
240	6
260	9
280	9
300	9
320	7
340	5
360	2

H2U-RIB:LEU-S2

20	0
40	0
60	0
80	0

100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-P:MET-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-MY:LEU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:TRP-S1

20	0
40	0
60	0
80	1
100	1

120	1
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	1
300	1
320	1
340	0
360	0

A-P:GLU-CA

20	0
40	3
60	6
80	9
100	9
120	8
140	7
160	5
180	0
200	0
220	3
240	6
260	9
280	9
300	9
320	7
340	0
360	0

G-R5:TRP-S1

20	0
40	0
60	0
80	1
100	2
120	1
140	0
160	0
180	0
200	0
220	0
240	1
260	0
280	2
300	1
320	0
340	1
360	0

U34-MY:TYR-S2

20	0
40	0
60	0
80	0
100	0
120	0

140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:SER-CA

20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	2
180	1
200	0
220	2
240	3
260	5
280	5
300	4
320	4
340	3
360	1

U-RIB:PHE-S1

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	2
340	1
360	0

C-RIB:TRP-S1

20	0
40	0
60	0
80	1
100	1
120	1
140	0

160	0
180	0
200	0
220	0
240	0
260	1
280	1
300	0
320	0
340	0
360	0

A-R6:GLU-CA

20	1
40	3
60	0
80	9
100	9
120	8
140	7
160	5
180	0
200	0
220	3
240	6
260	9
280	9
300	9
320	7
340	0
360	0

U-Y:GLU-CA

20	0
40	1
60	3
80	5
100	5
120	4
140	4
160	3
180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	0
360	0

H2U-P:PHE-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0

180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

DA-M5:HIS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:GLN-S2

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	1
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	1
360	0

IU-P:HIS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0

200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:GLU-S1

20	0
40	3
60	6
80	9
100	9
120	8
140	7
160	5
180	2
200	0
220	3
240	6
260	9
280	9
300	9
320	7
340	5
360	0

U34-RIB:GLY-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-RIB:VAL-CA

20	0
40	0
60	7
80	10
100	11
120	10
140	8
160	6
180	0
200	0

220	4
240	7
260	10
280	11
300	10
320	8
340	6
360	2

A-RIB:ALA-S1

20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	0
200	0
220	3
240	7
260	9
280	10
300	9
320	7
340	5
360	2

A-P:PRO-S1

20	0
40	2
60	3
80	5
100	5
120	5
140	4
160	3
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

C-P:ARG-S2

20	0
40	2
60	4
80	6
100	6
120	5
140	4
160	3
180	1
200	0
220	2

240	4
260	6
280	6
300	6
320	5
340	3
360	1

G-P:GLN-S1

20	0
40	1
60	3
80	5
100	5
120	4
140	4
160	3
180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

U-RIB:GLU-S1

20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	3
180	0
200	0
220	0
240	3
260	5
280	5
300	5
320	4
340	3
360	1

C-Y:CYS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0

260	0
280	0
300	0
320	0
340	0
360	0

QUO-RIB:LEU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:LEU-CA

20	0
40	2
60	4
80	5
100	5
120	5
140	4
160	0
180	1
200	0
220	2
240	4
260	5
280	5
300	5
320	4
340	3
360	0

G-R5:VAL-CA

20	0
40	4
60	7
80	10
100	11
120	10
140	8
160	6
180	2
200	1
220	4
240	7
260	10

280	11
300	10
320	8
340	6
360	0

QUO-M5:PHE-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-RIB:TYR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-RIB:THR-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0

300	0
320	0
340	0
360	0

QUO-M6:ARG-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-P:LEU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:LYS-S1

20	0
40	2
60	4
80	6
100	6
120	6
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6

320 5
340 3
360 1

FMU-RIB:PHE-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-Y:GLU-S2

20 0
40 2
60 5
80 7
100 7
120 7
140 5
160 4
180 1
200 0
220 2
240 5
260 7
280 7
300 7
320 6
340 4
360 1

DA-M5:SER-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0

340	0
360	0
U-P:LEU-S1	
20	0
40	2
60	4
80	5
100	5
120	5
140	4
160	3
180	0
200	0
220	2
240	4
260	5
280	5
300	5
320	4
340	3
360	0
IU-MY:THR-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
C-RIB:TYR-S2	
20	0
40	1
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	3
300	2
320	2
340	1

360	0
IU-MY:GLU-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
IU-RIB:ALA-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
G-RIB:GLU-S2	
20	1
40	4
60	8
80	11
100	12
120	11
140	8
160	6
180	2
200	0
220	4
240	8
260	11
280	12
300	11
320	9
340	7
360	2

A-RIB:GLN-CA

20	0
40	0
60	3
80	4
100	4
120	3
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

FHU-MY:GLN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-P:VAL-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:CYS-CA

20	0
40	0
60	0
80	0
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	1
340	0
360	0

U-P:VAL-CA

20	0
40	0
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

FMU-MY:ASP-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:TRP-S1

20	0
----	---

40	0
60	1
80	1
100	2
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	1
280	2
300	1
320	1
340	1
360	0

G-R6:TRP-CA

20	0
40	0
60	1
80	1
100	0
120	1
140	1
160	0
180	0
200	0
220	0
240	0
260	1
280	2
300	1
320	1
340	0
360	0

FMU-P:ASP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:LEU-S1

20	0
40	3

60	7
80	10
100	10
120	9
140	7
160	5
180	2
200	0
220	4
240	0
260	10
280	10
300	9
320	8
340	6
360	2

H2U-P:THR-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-MY:ALA-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:TYR-S2

20	0
40	0
60	1

80	2
100	2
120	1
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0
C31-RIB:SER-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U31-P:ALA-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U-Y:PHE-S2	
20	0
40	0
60	1
80	2

100	2
120	2
140	1
160	0
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	2
340	0
360	0

DA-M6:GLN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-RIB:TYR-CA

20	0
40	0
60	3
80	4
100	5
120	0
140	3
160	2
180	0
200	0
220	1
240	0
260	4
280	5
300	4
320	0
340	2
360	0

QUO-M5:PHE-S2

20	0
40	0
60	0
80	0
100	0

120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-RIB:LEU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-RIB:PHE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:VAL-S1

20	0
40	4
60	0
80	10
100	11
120	10

140	0
160	0
180	2
200	0
220	4
240	7
260	10
280	11
300	10
320	8
340	6
360	2

5BU-MY:PRO-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-RIB:GLU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-MY:LYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0

160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:TRP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-RIB:SER-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:THR-S1

20	0
40	2
60	5
80	7
100	7
120	6
140	5
160	4

180	0
200	0
220	2
240	5
260	7
280	7
300	7
320	6
340	4
360	0

G-P:HIS-S2

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	2
360	0

H2U-P:PHE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:HIS-S1

20	0
40	0
60	1
80	1
100	1
120	1
140	1
160	0
180	0

200	0
220	0
240	1
260	1
280	1
300	1
320	1
340	0
360	0
C31-P:THR-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
FHU-P:TYR-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
I-RIB:ALA-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0

220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:ILE-S1

20	0
40	2
60	4
80	6
100	0
120	6
140	4
160	0
180	0
200	0
220	0
240	4
260	6
280	0
300	6
320	5
340	3
360	0

A-R6:LEU-S1

20	0
40	3
60	7
80	10
100	10
120	9
140	7
160	5
180	0
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	2

C31-MY:GLU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0

240 0
260 0
280 0
300 0
320 0
340 0
360 0

U-RIB:SER-CA

20 0
40 1
60 2
80 3
100 3
120 3
140 2
160 2
180 0
200 0
220 1
240 2
260 3
280 3
300 3
320 2
340 2
360 0

IU-MY:ARG-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U31-MY:THR-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0

260	0
280	0
300	0
320	0
340	0
360	0

U-Y:LEU-CA

20	0
40	2
60	4
80	5
100	5
120	5
140	4
160	0
180	1
200	0
220	0
240	4
260	5
280	5
300	5
320	4
340	3
360	0

U-P:GLU-CA

20	0
40	1
60	0
80	5
100	5
120	4
140	4
160	3
180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	0

U31-MY:MET-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0

280	0
300	0
320	0
340	0
360	0

G-P:HIS-CA

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	0
240	2
260	3
280	3
300	3
320	2
340	2
360	0

G-R5:ASN-CA

20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	0
300	5
320	4
340	3
360	1

FMU-MY:VAL-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0

300	0
320	0
340	0
360	0

A-R6:LEU-S2

20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	0

IU-MY:LYS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:PHE-CA

20	0
40	2
60	4
80	5
100	0
120	5
140	4
160	0
180	0
200	0
220	0
240	4
260	5
280	5
300	5

320 0
340 0
360 0

FMU-MY:GLU-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-RIB:TRP-S2

20 0
40 0
60 1
80 0
100 1
120 1
140 1
160 0
180 0
200 0
220 0
240 1
260 1
280 1
300 1
320 1
340 0
360 0

A-P:ASP-CA

20 0
40 0
60 5
80 6
100 7
120 6
140 5
160 4
180 1
200 0
220 2
240 5
260 7
280 7
300 6
320 5

340 4
360 1
I-RIB:GLY-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-P:PHE-S2

20 0
40 0
60 2
80 3
100 3
120 3
140 2
160 2
180 0
200 0
220 1
240 2
260 3
280 3
300 3
320 2
340 2
360 0

C-P:THR-S1

20 0
40 1
60 3
80 4
100 4
120 4
140 3
160 2
180 1
200 0
220 1
240 3
260 4
280 4
300 4
320 3
340 2

360 1
U-RIB:ARG-S2

20 0
40 1
60 3
80 4
100 4
120 4
140 3
160 2
180 0
200 0
220 1
240 3
260 4
280 4
300 4
320 3
340 2
360 1

IU-MY:THR-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-P:ALA-S1

20 0
40 4
60 8
80 11
100 12
120 11
140 9
160 6
180 2
200 1
220 4
240 8
260 11
280 12
300 11
320 9
340 7
360 2

QUO-M5:ASP-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-R5:TYR-S2

20 0
40 1
60 3
80 4
100 5
120 4
140 0
160 0
180 0
200 0
220 0
240 3
260 4
280 5
300 4
320 3
340 2
360 1

U31-RIB:ASP-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U31-RIB:MET-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-Y:PRO-S1

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	0

FHU-MY:CYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:GLN-S1

20	0
----	---

40	1
60	3
80	4
100	4
120	3
140	3
160	2
180	0
200	0
220	0
240	3
260	4
280	4
300	4
320	3
340	2
360	1

G-RIB:THR-CA

20	0
40	2
60	5
80	7
100	7
120	6
140	5
160	4
180	1
200	0
220	2
240	5
260	7
280	7
300	7
320	6
340	4
360	1

FMU-MY:ALA-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-MY:HIS-S1

20	0
40	0

60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
C31-MY:ALA-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
A-R5:PHE-CA	
20	0
40	0
60	3
80	0
100	4
120	4
140	3
160	0
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	0
340	0
360	0
U-RIB:VAL-S1	
20	0
40	1
60	3

80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	0
240	3
260	4
280	4
300	4
320	3
340	2
360	0

U-RIB:ASP-S1

20	0
40	1
60	2
80	3
100	4
120	3
140	3
160	2
180	0
200	0
220	1
240	2
260	3
280	4
300	3
320	3
340	2
360	0

FMU-MY:GLU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-RIB:HIS-CA

20	0
40	0
60	1
80	2

100	2
120	2
140	0
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0

FHU-MY:LEU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-RIB:ALA-S1

20	0
40	2
60	5
80	7
100	8
120	7
140	5
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

GTP-M5:ALA-S1

20	0
40	0
60	0
80	0
100	0

120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:GLU-S2

20	0
40	4
60	8
80	11
100	12
120	10
140	8
160	6
180	2
200	0
220	4
240	8
260	11
280	12
300	11
320	9
340	6
360	2

C-RIB:LYS-S1

20	0
40	2
60	4
80	6
100	6
120	6
140	5
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

U-RIB:TYR-S2

20	0
40	0
60	0
80	2
100	2
120	1

140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0

FMU-RIB:GLU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-RIB:PHE-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

IU-RIB:ARG-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0

160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M6:GLN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:ALA-S1

20	0
40	4
60	8
80	11
100	12
120	11
140	9
160	7
180	2
200	1
220	4
240	8
260	11
280	12
300	11
320	10
340	7
360	2

FMU-P:VAL-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0

180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:ARG-CA

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

FMU-P:PHE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:GLU-S2

20	0
40	3
60	6
80	9
100	9
120	8
140	7
160	5
180	2

200	0
220	0
240	6
260	9
280	9
300	9
320	7
340	5
360	2

U-RIB:ALA-S1

20	0
40	2
60	3
80	5
100	5
120	5
140	4
160	3
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

C-RIB:ASP-S1

20	0
40	0
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	1

A-R6:ASN-S1

20	0
40	0
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0

220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

OMC-P:LYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-MY:PHE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-MY:PHE-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0

240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:ASN-S2

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

G-P:ASN-CA

20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	1

H2U-P:GLU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0

260	0
280	0
300	0
320	0
340	0
360	0

U31-RIB:ASP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:MET-S1

20	0
40	0
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	0
240	2
260	2
280	3
300	2
320	2
340	0
360	0

U-P:ARG-S1

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4

280	4
300	4
320	3
340	2
360	1

A-RIB:VAL-CA

20	0
40	3
60	6
80	8
100	9
120	8
140	6
160	4
180	1
200	0
220	0
240	6
260	8
280	9
300	8
320	7
340	5
360	2

C-Y:HIS-S2

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	0
340	1
360	0

C-Y:MET-S2

20	0
40	0
60	1
80	2
100	2
120	2
140	0
160	0
180	0
200	0
220	0
240	1
260	2
280	2

300	2
320	0
340	0
360	0

A-R5:TYR-CA

20	0
40	1
60	2
80	3
100	4
120	3
140	2
160	0
180	0
200	0
220	1
240	2
260	3
280	4
300	3
320	3
340	2
360	0

U-Y:GLN-S1

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	0
360	0

G-RIB:HIS-S1

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3

320 2
340 2
360 0

C31-MY:ASP-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FMU-P:ALA-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U31-MY:GLN-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0

340 0
360 0
FHU-MY:ARG-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

5BU-P:ILE-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-R5:MET-S2

20 0
40 1
60 2
80 2
100 3
120 2
140 2
160 1
180 0
200 0
220 1
240 2
260 2
280 0
300 2
320 2
340 0

360 0
A-R5:TRP-S2

20 0
40 0
60 1
80 0
100 1
120 1
140 0
160 0
180 0
200 0
220 0
240 1
260 1
280 1
300 1
320 1
340 0
360 0

C-RIB:LEU-CA

20 0
40 3
60 5
80 7
100 8
120 7
140 6
160 4
180 1
200 0
220 0
240 5
260 8
280 8
300 7
320 6
340 4
360 0

FMU-MY:ASP-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U34-P:GLU-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

5BU-P:ARG-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

DA-M5:LEU-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

QUO-M5:LEU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-MY:MET-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:ASP-S1

20	0
40	3
60	6
80	8
100	9
120	8
140	6
160	5
180	2
200	0
220	3
240	6
260	8
280	9
300	8
320	7
340	5
360	2

DA-M6:GLU-S1

20	0
----	---

40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

H2U-MY:GLN-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

H2U-MY:ARG-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-RIB:CYS-CA

20 0
40 0

60	0
80	1
100	1
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	1
280	1
300	0
320	0
340	0
360	0

A-R5:ASN-S1

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

U31-P:ASN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:GLN-S2

20	0
40	0
60	1

80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0

H2U-MY:ASN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-RIB:GLU-CA

20	0
40	0
60	8
80	11
100	12
120	11
140	9
160	6
180	2
200	0
220	4
240	8
260	11
280	12
300	11
320	9
340	7
360	2

U31-RIB:ASP-CA

20	0
40	0
60	0
80	0

100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-MY:GLU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:MET-CA

20	0
40	0
60	2
80	3
100	3
120	0
140	0
160	0
180	0
200	0
220	0
240	2
260	3
280	3
300	0
320	3
340	2
360	0

U-P:CYS-CA

20	0
40	0
60	0
80	0
100	0

120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

IU-MY:TYR-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-RIB:LEU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-P:ASP-S2

20	0
40	0
60	0
80	0
100	0
120	0

140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-P:LEU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:PHE-S1

20	0
40	1
60	0
80	3
100	0
120	3
140	2
160	2
180	0
200	0
220	0
240	2
260	3
280	3
300	3
320	0
340	2
360	0

QUO-M5:ARG-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0

160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:ASP-S2

20	0
40	1
60	2
80	3
100	4
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	4
300	3
320	3
340	2
360	0

U-RIB:CYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:LYS-S1

20	0
40	0
60	7
80	9
100	10
120	9
140	7
160	5

180	2
200	0
220	4
240	7
260	9
280	10
300	9
320	8
340	6
360	2

C-RIB:PRO-CA

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

C31-P:ASP-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-P:PRO-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0

200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:TYR-S1

20	0
40	0
60	1
80	2
100	2
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	0
360	0

FHU-MY:PHE-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

5BU-RIB:PRO-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0

220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-P:ILE-CA

20 0
40 0
60 5
80 7
100 8
120 7
140 6
160 4
180 0
200 0
220 0
240 5
260 7
280 8
300 7
320 6
340 4
360 0

G-RIB:SER-CA

20 0
40 3
60 5
80 7
100 8
120 7
140 6
160 4
180 1
200 0
220 3
240 5
260 7
280 8
300 7
320 6
340 4
360 1

C-P:GLU-S2

20 0
40 2
60 5
80 7
100 7
120 7
140 5
160 4
180 1
200 0
220 2

240	5
260	7
280	7
300	7
320	6
340	4
360	1

C-Y:HIS-S1

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0

A-R6:LYS-CA

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	0
200	0
220	3
240	5
260	8
280	8
300	7
320	6
340	4
360	0

U31-P:ASN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0

260	0
280	0
300	0
320	0
340	0
360	0

G-R5:LEU-CA

20	0
40	4
60	9
80	12
100	13
120	12
140	9
160	7
180	0
200	0
220	5
240	9
260	12
280	13
300	12
320	10
340	0
360	3

DA-M6:THR-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-RIB:LYS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0

280	0
300	0
320	0
340	0
360	0

U-Y:ASP-CA

20	0
40	1
60	2
80	3
100	0
120	3
140	3
160	2
180	0
200	0
220	1
240	2
260	3
280	0
300	3
320	3
340	2
360	0

G-R6:HIS-CA

20	0
40	0
60	2
80	3
100	3
120	3
140	2
160	0
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	0
360	0

U-P:TYR-CA

20	0
40	0
60	1
80	2
100	2
120	0
140	1
160	1
180	0
200	0
220	0
240	0
260	2
280	2

300	2
320	1
340	0
360	0

G-RIB:ARG-CA

20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	3
240	7
260	9
280	10
300	9
320	8
340	5
360	2

G-R6:THR-CA

20	0
40	2
60	5
80	7
100	7
120	6
140	5
160	4
180	0
200	0
220	2
240	5
260	7
280	7
300	7
320	6
340	0
360	0

U-Y:GLY-CA

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4

320 3
340 2
360 1

A-R6:ARG-S2

20 0
40 2
60 5
80 7
100 8
120 7
140 6
160 4
180 1
200 0
220 3
240 5
260 7
280 8
300 7
320 6
340 4
360 1

C31-P:ASP-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U34-MY:ASN-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0

340 0
360 0
IU-MY:LEU-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-R6:HIS-S2

20 0
40 1
60 2
80 3
100 3
120 3
140 2
160 2
180 0
200 0
220 1
240 2
260 3
280 3
300 3
320 2
340 0
360 0

A-P:VAL-S1

20 0
40 3
60 6
80 8
100 9
120 8
140 6
160 4
180 1
200 0
220 3
240 6
260 8
280 9
300 8
320 7
340 5

360	2
U-Y:LEU-S2	
20	0
40	2
60	4
80	5
100	5
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	5
300	5
320	4
340	3
360	1
U31-P:LEU-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
G-R6:LYS-CA	
20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	2

U-RIB:MET-S2

20	0
40	0
60	0
80	1
100	1
120	1
140	0
160	0
180	0
200	0
220	0
240	1
260	1
280	1
300	1
320	1
340	0
360	0

FHU-MY:ASP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:GLY-CA

20	1
40	3
60	7
80	10
100	10
120	9
140	7
160	6
180	2
200	0
220	4
240	7
260	10
280	10
300	10
320	8
340	6
360	2

5BU-P:ARG-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-MY:GLU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-MY:CYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:SER-CA

20	0
----	---

40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	2
360	0
FMU-P:ASP-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
G-R6:ALA-CA	
20	0
40	4
60	8
80	11
100	12
120	11
140	9
160	7
180	2
200	0
220	4
240	8
260	11
280	12
300	11
320	10
340	7
360	0
A-RIB:GLY-CA	
20	0
40	3

60	6
80	8
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	8
280	8
300	8
320	6
340	4
360	1

U-Y:CYS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

IU-MY:HIS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:GLU-CA

20	0
40	2
60	5

80	7
100	7
120	7
140	5
160	4
180	1
200	0
220	3
240	5
260	7
280	7
300	7
320	6
340	4
360	1

G-R5:TRP-CA

20	0
40	0
60	0
80	1
100	2
120	1
140	0
160	0
180	0
200	0
220	0
240	0
260	1
280	2
300	1
320	0
340	0
360	0

M2G-P:GLU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-RIB:GLN-S2

20	0
40	0
60	0
80	0

100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
IU-MY:SER-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U-RIB:HIS-S2	
20	0
40	0
60	1
80	1
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	1
280	1
300	1
320	1
340	0
360	0
U34-P:PHE-S2	
20	0
40	0
60	0
80	0
100	0

120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-RIB:TYR-CA

20	0
40	0
60	0
80	2
100	2
120	1
140	0
160	1
180	0
200	0
220	0
240	0
260	0
280	2
300	2
320	1
340	1
360	0

DA-M5:TYR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-RIB:ARG-S1

20	0
40	0
60	0
80	0
100	0
120	0

140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M5:ARG-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:THR-CA

20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	0
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	0

FHU-P:ALA-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0

160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-RIB:LEU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-MY:LEU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-RIB:TYR-S2

20	0
40	1
60	3
80	4
100	5
120	4
140	3
160	2

180	1
200	0
220	1
240	3
260	4
280	5
300	4
320	3
340	2
360	0

DA-M6:THR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M5:GLU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-MY:TRP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0

200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-Y:GLN-CA

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	0
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	0
340	2
360	0

C31-P:GLN-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-RIB:LYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0

220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

IU-RIB:LYS-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-RIB:PHE-S1

20 0
40 2
60 0
80 5
100 5
120 5
140 4
160 3
180 1
200 0
220 0
240 4
260 5
280 5
300 5
320 4
340 3
360 1

U31-P:GLN-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0

240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-MY:ASP-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-MY:GLU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:TYR-S1

20	0
40	1
60	2
80	3
100	4
120	3
140	2
160	2
180	0
200	0
220	0
240	0

260	3
280	4
300	3
320	3
340	2
360	0

G-P:GLU-CA

20	0
40	4
60	8
80	11
100	12
120	11
140	9
160	6
180	2
200	0
220	4
240	0
260	11
280	12
300	11
320	9
340	7
360	0

DA-M5:ASN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:TRP-S1

20	0
40	0
60	0
80	0
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	0
260	1

280	1
300	1
320	1
340	0
360	0

U31-P:ASP-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:TRP-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-P:ILE-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0

300	0
320	0
340	0
360	0

QUO-RIB:ASP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-P:MET-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:PHE-CA

20	0
40	0
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4

320 3
340 2
360 0

H2U-P:GLU-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FHU-P:TYR-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

IU-RIB:ILE-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0

340 0
360 0
A-R5:ASP-S2

20 0
40 2
60 5
80 6
100 7
120 6
140 5
160 4
180 1
200 0
220 2
240 5
260 6
280 7
300 6
320 5
340 4
360 1

C31-P:MET-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

H2U-P:GLU-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0

360	0
A-R5:MET-CA	
20	0
40	1
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	0
300	2
320	2
340	1
360	0
A-RIB:ASN-CA	
20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1
G-RIB:PRO-CA	
20	0
40	2
60	4
80	6
100	7
120	6
140	5
160	3
180	1
200	0
220	2
240	4
260	6
280	7
300	6
320	5
340	4
360	0

C-RIB:SER-S1

20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	2
180	1
200	0
220	2
240	3
260	5
280	5
300	4
320	4
340	3
360	1

C-RIB:PHE-CA

20	0
40	0
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	0
240	0
260	3
280	3
300	3
320	2
340	0
360	0

A-RIB:ILE-CA

20	0
40	0
60	4
80	6
100	6
120	6
140	4
160	3
180	1
200	0
220	2
240	0
260	6
280	6
300	6
320	5
340	3
360	1

G-R5:ALA-CA

20	0
40	4
60	8
80	11
100	12
120	0
140	9
160	7
180	0
200	0
220	4
240	8
260	11
280	12
300	11
320	10
340	7
360	2

QUO-M6:LYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-MY:MET-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-MY:TYR-CA

20	0
----	---

40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:ASP-S2

20	0
40	2
60	5
80	6
100	7
120	6
140	5
160	4
180	1
200	0
220	2
240	5
260	6
280	7
300	6
320	5
340	4
360	1

A-R6:MET-S2

20	0
40	1
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	3
300	2
320	2
340	1
360	0

A-P:LYS-S2

20	0
40	3

60	5
80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

A-P:ARG-S2

20	0
40	2
60	5
80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

A-R6:TYR-S2

20	0
40	1
60	2
80	3
100	4
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	4
300	3
320	3
340	2
360	0

G-P:SER-S1

20	0
40	3
60	5

80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

G-R6:ILE-S1

20	0
40	0
60	5
80	0
100	8
120	7
140	0
160	4
180	0
200	0
220	0
240	5
260	7
280	8
300	7
320	0
340	0
360	1

A-RIB:PHE-S1

20	0
40	0
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	0
240	3
260	4
280	4
300	4
320	3
340	2
360	0

FHU-RIB:TYR-CA

20	0
40	0
60	0
80	0

100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:GLN-CA

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	0
280	2
300	2
320	1
340	1
360	0

IU-RIB:HIS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-MY:VAL-S1

20	0
40	0
60	0
80	0
100	0

120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-Y:ALA-CA

20 0
40 2
60 5
80 7
100 8
120 7
140 5
160 4
180 0
200 0
220 3
240 5
260 7
280 8
300 7
320 6
340 4
360 0

FHU-RIB:TYR-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

QUO-P:PHE-S2

20 0
40 0
60 0
80 0
100 0
120 0

140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-P:TRP-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:PHE-S1

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	2
340	0
360	0

G-R6:SER-S1

20	0
40	3
60	5
80	7
100	8
120	7
140	6

160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	0

FMU-RIB:ASP-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:LYS-S1

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	8
280	8
300	7
320	6
340	4
360	1

FHU-MY:ILE-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0

180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:TYR-S2

20	0
40	0
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	3
300	2
320	2
340	1
360	0

H2U-P:THR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:GLN-S1

20	0
40	1
60	3
80	4
100	4
120	3
140	3
160	2
180	0

200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	0
360	0

U34-RIB:TYR-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:MET-S2

20	0
40	1
60	2
80	3
100	0
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	0
320	3
340	2
360	0

G-R5:GLN-S1

20	0
40	1
60	3
80	5
100	5
120	4
140	0
160	3
180	0
200	0

220	2
240	3
260	5
280	5
300	5
320	0
340	3
360	0

H2U-MY:THR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-P:LYS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-P:ARG-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0

240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:CYS-S1

20	0
40	0
60	0
80	1
100	0
120	1
140	1
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	1
340	0
360	0

C-Y:PHE-CA

20	0
40	0
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	0
260	3
280	3
300	3
320	2
340	2
360	0

FMU-MY:GLN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0

260	0
280	0
300	0
320	0
340	0
360	0

U-Y:GLN-CA

20	0
40	0
60	1
80	2
100	0
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	0
360	0

FMU-RIB:MET-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-RIB:GLU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0

280	0
300	0
320	0
340	0
360	0

G-P:PHE-S2

20	0
40	2
60	3
80	5
100	5
120	5
140	4
160	3
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

QUO-RIB:GLN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-RIB:MET-CA

20	0
40	1
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	3

300	2
320	2
340	1
360	0

A-P:ALA-CA

20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	0
240	7
260	9
280	10
300	9
320	7
340	5
360	2

DA-M5:HIS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

I-RIB:TRP-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0

320 0
340 0
360 0

C31-MY:PHE-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-P:GLY-CA

20 0
40 2
60 4
80 6
100 6
120 6
140 5
160 3
180 1
200 0
220 2
240 4
260 6
280 6
300 6
320 5
340 3
360 1

U-RIB:ASN-S2

20 0
40 0
60 1
80 2
100 2
120 2
140 1
160 1
180 0
200 0
220 1
240 1
260 2
280 2
300 2
320 2

340 1
360 0
FHU-MY:ARG-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-P:ASP-S2

20 0
40 3
60 6
80 8
100 9
120 8
140 6
160 5
180 1
200 0
220 3
240 6
260 8
280 9
300 8
320 7
340 5
360 2

G-R6:MET-CA

20 0
40 1
60 2
80 3
100 3
120 3
140 0
160 0
180 0
200 0
220 0
240 2
260 3
280 3
300 3
320 3
340 2

360 0
IU-RIB:HIS-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-Y:TRP-S2

20 0
40 0
60 0
80 1
100 1
120 1
140 0
160 0
180 0
200 0
220 0
240 0
260 1
280 1
300 1
320 1
340 0
360 0

QUO-M6:GLN-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

QUO-P:LEU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:GLY-CA

20	0
40	3
60	6
80	8
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	8
280	8
300	8
320	6
340	4
360	1

FMU-RIB:ASN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-RIB:GLN-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-RIB:PHE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:GLU-S2

20	0
40	3
60	6
80	9
100	9
120	8
140	7
160	5
180	2
200	0
220	3
240	6
260	9
280	9
300	9
320	7
340	5
360	2

G-R6:ASN-S1

20	0
----	---

40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	0

C-RIB:MET-S2

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0

FMU-RIB:HIS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

GTP-M6:SER-CA

20	0
40	0

60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
FHU-RIB:LYS-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U31-P:MET-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U-RIB:TRP-S2	
20	0
40	0
60	0

80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:LEU-CA

20	0
40	4
60	9
80	12
100	13
120	12
140	9
160	7
180	0
200	0
220	5
240	9
260	12
280	13
300	12
320	10
340	0
360	0

FHU-RIB:GLY-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-P:CYS-S1

20	0
40	0
60	0
80	0

100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-Y:MET-S1

20 0
40 0
60 1
80 2
100 2
120 0
140 0
160 0
180 0
200 0
220 0
240 1
260 2
280 2
300 2
320 0
340 0
360 0

DA-M6:LYS-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-RIB:ARG-S2

20 0
40 2
60 5
80 7
100 8

120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

U-RIB:ARG-CA

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

H2U-MY:PHE-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:THR-S1

20	0
40	2
60	5
80	7
100	7
120	6

140	5
160	4
180	0
200	0
220	2
240	5
260	7
280	7
300	7
320	6
340	4
360	0

G-R5:TYR-S1

20	0
40	0
60	3
80	4
100	5
120	4
140	0
160	2
180	1
200	0
220	1
240	3
260	4
280	5
300	4
320	3
340	0
360	0

U31-MY:GLU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:ARG-CA

20	0
40	3
60	7
80	9
100	10
120	9
140	7

160	5
180	2
200	0
220	3
240	7
260	9
280	10
300	9
320	8
340	5
360	2

G-RIB:ASP-S2

20	0
40	3
60	6
80	8
100	9
120	8
140	6
160	5
180	2
200	0
220	0
240	6
260	8
280	9
300	8
320	7
340	5
360	2

C-P:ASN-S1

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	3
340	2
360	0

U34-P:ARG-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0

180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
H2U-P:ARG-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
C-RIB:ASN-S2	
20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	3
340	2
360	0
U31-P:ASN-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0

200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U34-MY:SER-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-RIB:LYS-CA

20	0
40	2
60	4
80	6
100	6
120	6
140	5
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

U34-P:PRO-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0

220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:PRO-S1

20	0
40	2
60	3
80	5
100	5
120	5
140	4
160	0
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

I-P:TRP-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R5:ARG-S1

20	0
40	2
60	5
80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	3

240	5
260	7
280	8
300	7
320	6
340	0
360	1

QUO-M6:LYS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:ASP-S1

20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	1

FHU-MY:SER-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0

260	0
280	0
300	0
320	0
340	0
360	0
A-P: ILE-S1	
20	0
40	2
60	4
80	6
100	6
120	6
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	0
320	5
340	3
360	1
U-Y: ILE-S1	
20	0
40	0
60	2
80	3
100	3
120	3
140	2
160	0
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	2
360	0
G-P: LYS-CA	
20	0
40	3
60	7
80	9
100	10
120	9
140	7
160	5
180	2
200	0
220	4
240	7
260	9

280	10
300	9
320	8
340	6
360	2
G-P:GLU-S1	
20	0
40	4
60	8
80	11
100	12
120	11
140	9
160	6
180	2
200	0
220	4
240	8
260	11
280	12
300	11
320	9
340	7
360	2
C-RIB:PRO-S1	
20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1
A-R6:LYS-S1	
20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	0
200	0
220	3
240	5
260	8
280	8

300	7
320	6
340	4
360	0

C-Y:MET-CA

20	0
40	0
60	1
80	2
100	2
120	2
140	0
160	0
180	0
200	0
220	0
240	0
260	2
280	2
300	2
320	0
340	0
360	0

A-RIB:TRP-CA

20	0
40	0
60	1
80	0
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	1
280	1
300	1
320	1
340	0
360	0

H2U-P:ASN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0

320 0
340 0
360 0

A-R6:PRO-S1

20 0
40 2
60 3
80 5
100 5
120 5
140 4
160 3
180 1
200 0
220 2
240 3
260 5
280 5
300 5
320 4
340 3
360 1

C-P:GLU-S1

20 0
40 2
60 5
80 7
100 7
120 7
140 5
160 4
180 1
200 0
220 3
240 5
260 7
280 7
300 7
320 6
340 4
360 1

DA-M6:LEU-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0

340	0
360	0
C-P:GLN-S1	
20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	1
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	2
360	0
C-RIB:GLN-S1	
20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	1
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	2
360	0
U-RIB:HIS-CA	
20	0
40	0
60	1
80	1
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	0
260	1
280	1
300	1
320	1
340	0

360 0
G-R6:TYR-CA

20 0
40 0
60 0
80 4
100 5
120 4
140 3
160 2
180 1
200 0
220 0
240 0
260 4
280 5
300 4
320 3
340 0
360 1

A-P:THR-CA

20 0
40 2
60 4
80 5
100 6
120 5
140 4
160 3
180 1
200 0
220 2
240 4
260 5
280 6
300 5
320 4
340 3
360 1

H2U-RIB:PHE-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U-P:ASP-CA

20	0
40	1
60	2
80	3
100	4
120	3
140	3
160	2
180	0
200	0
220	0
240	2
260	3
280	4
300	3
320	3
340	2
360	0

A-RIB:VAL-S1

20	0
40	3
60	6
80	8
100	9
120	8
140	6
160	4
180	1
200	0
220	0
240	6
260	8
280	9
300	8
320	7
340	5
360	2

QUO-M6:LYS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-RIB:MET-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
H2U-P:TRP-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
G-P:TYR-S2	
20	0
40	0
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	0
240	3
260	4
280	4
300	4
320	3
340	2
360	0
G-RIB:CYS-S1	
20	0

40	0
60	0
80	0
100	0
120	1
140	1
160	0
180	0
200	0
220	0
240	0
260	1
280	0
300	1
320	1
340	0
360	0

A-R5:PRO-CA

20	0
40	2
60	3
80	5
100	5
120	5
140	4
160	0
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	0

DA-M5:THR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M5:LEU-S2

20	0
40	0

60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-MY:GLN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:GLN-S2

20	0
40	1
60	3
80	4
100	4
120	3
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	0

G-P:TYR-S1

20	0
40	0
60	3

80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	0
240	3
260	4
280	4
300	4
320	3
340	2
360	1
H2U-MY:LEU-CA	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
G-RIB:THR-S1	
20	0
40	2
60	5
80	7
100	7
120	6
140	5
160	4
180	1
200	0
220	2
240	5
260	7
280	7
300	7
320	6
340	4
360	1
U34-P:GLU-S2	
20	0
40	0
60	0
80	0

100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-MY:ARG-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:LEU-S2

20	1
40	4
60	9
80	12
100	13
120	12
140	9
160	7
180	0
200	1
220	5
240	9
260	12
280	13
300	12
320	10
340	0
360	0

G-RIB:MET-CA

20	0
40	0
60	2
80	3
100	3

120	3
140	2
160	2
180	0
200	0
220	0
240	2
260	3
280	3
300	3
320	3
340	2
360	0

H2U-RIB:ASN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-P:ARG-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-P:HIS-CA

20	0
40	0
60	1
80	1
100	1
120	1

140	1
160	0
180	0
200	0
220	0
240	1
260	1
280	1
300	1
320	1
340	0
360	0
C31-P:PHE-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
C-P:HIS-S1	
20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	1
360	0
DA-M5:ASP-S1	
20	0
40	0
60	0
80	0
100	0
120	0
140	0

160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

GTP-M6:GLY-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:VAL-S1

20	0
40	1
60	3
80	4
100	4
120	0
140	3
160	0
180	0
200	0
220	1
240	3
260	4
280	4
300	0
320	3
340	2
360	0

C-Y:PHE-S1

20	0
40	0
60	0
80	3
100	3
120	3
140	2
160	2

180	0
200	0
220	1
240	0
260	3
280	3
300	3
320	2
340	0
360	0

A-R6:LYS-S2

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	0

U-Y:TYR-S2

20	0
40	0
60	0
80	2
100	2
120	1
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	0
360	0

A-RIB:MET-S2

20	0
40	1
60	2
80	2
100	3
120	2
140	2
160	1
180	0

200	0
220	1
240	2
260	2
280	3
300	2
320	2
340	1
360	0

C31-RIB:GLU-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

QUO-M6:ASP-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-MY:MET-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0

220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-Y:SER-S1

20 0
40 1
60 3
80 5
100 5
120 4
140 3
160 2
180 1
200 0
220 2
240 3
260 5
280 5
300 4
320 4
340 3
360 0

A-RIB:ILE-S1

20 0
40 0
60 4
80 6
100 6
120 6
140 4
160 3
180 1
200 0
220 2
240 0
260 6
280 6
300 6
320 5
340 3
360 1

G-P:VAL-S1

20 0
40 4
60 7
80 10
100 11
120 10
140 8
160 6
180 2
200 0
220 4

240	7
260	10
280	11
300	10
320	8
340	6
360	2

G-P:PHE-CA

20	0
40	0
60	3
80	5
100	5
120	5
140	4
160	3
180	0
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	0

GTP-M6:THR-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-P:GLN-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0

260	0
280	0
300	0
320	0
340	0
360	0

G-RIB:GLN-S1

20	0
40	1
60	3
80	5
100	5
120	4
140	4
160	3
180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	1

QUO-M6:PHE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-P:ARG-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0

280	0
300	0
320	0
340	0
360	0

G-R6:TRP-S2

20	0
40	0
60	0
80	1
100	2
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	1
280	2
300	1
320	1
340	0
360	0

A-RIB:LYS-S2

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

C-Y:ARG-S2

20	0
40	2
60	4
80	6
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6

300	6
320	5
340	3
360	1
C-Y:ASP-CA	
20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	0
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	1
U-P:GLU-S1	
20	0
40	1
60	3
80	5
100	5
120	4
140	3
160	3
180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	4
340	3
360	0
A-R6:HIS-S1	
20	0
40	0
60	2
80	2
100	2
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	2
300	2

320	2
340	1
360	0

U34-RIB:SER-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:VAL-CA

20	0
40	3
60	6
80	8
100	9
120	8
140	6
160	4
180	1
200	0
220	0
240	6
260	8
280	9
300	8
320	7
340	5
360	0

DA-M5:ASN-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0

340 0
360 0
5BU-RIB:SER-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-R5:MET-S1

20 0
40 0
60 2
80 3
100 0
120 3
140 0
160 0
180 0
200 0
220 1
240 0
260 3
280 3
300 3
320 3
340 2
360 0

G-P:TRP-CA

20 0
40 0
60 1
80 1
100 2
120 1
140 0
160 1
180 0
200 0
220 0
240 1
260 1
280 2
300 1
320 1
340 0

360 0
H2U-MY:ASN-S1
20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FHU-MY:VAL-S1
20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-Y:TRP-CA
20 0
40 0
60 0
80 1
100 1
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 1
300 0
320 1
340 0
360 0

FHU-MY:LYS-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-P:ASN-S1

20	0
40	2
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	1

C-RIB:VAL-CA

20	0
40	2
60	5
80	6
100	7
120	6
140	5
160	3
180	1
200	0
220	2
240	4
260	6
280	7
300	6
320	5
340	4
360	0

U-Y:LYS-S2

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

DA-M6:LYS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-MY:SER-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-RIB:ARG-S2

20	0
----	---

40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U34-MY:ASN-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-Y:HIS-CA

20	0
40	0
60	1
80	2
100	2
120	2
140	1
160	1
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	1
340	0
360	0

U31-MY:TYR-CA

20	0
40	0

60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-RIB:GLY-CA

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

GTP-M5:THR-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:LYS-S1

20	1
40	3
60	7

80	9
100	10
120	9
140	7
160	5
180	0
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	2

U-Y:ARG-CA

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	0

A-R6:ARG-S1

20	0
40	2
60	5
80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	3
240	5
260	7
280	8
300	7
320	6
340	4
360	1

C31-MY:PHE-CA

20	0
40	0
60	0
80	0

100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P: ILE-CA

20	0
40	0
60	3
80	5
100	5
120	4
140	3
160	3
180	1
200	0
220	0
240	0
260	5
280	5
300	5
320	4
340	3
360	1

FHU-RIB: ILE-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

IU-RIB: LYS-S1

20	0
40	0
60	0
80	0
100	0

120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

DA-M5:LEU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U34-P:ASN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-RIB:LYS-CA

20	0
40	1
60	3
80	4
100	4
120	4

140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

U-Y:PHE-S1

20	0
40	0
60	1
80	2
100	0
120	2
140	0
160	0
180	0
200	0
220	0
240	1
260	2
280	2
300	2
320	2
340	0
360	0

U31-MY:ILE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-MY:ALA-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0

160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
U31-P:ASP-S2	
20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0
C-Y:TYR-CA	
20	0
40	0
60	2
80	2
100	3
120	2
140	2
160	1
180	0
200	0
220	1
240	2
260	2
280	3
300	2
320	2
340	1
360	0
G-R5:PHE-S2	
20	0
40	2
60	4
80	5
100	5
120	0
140	4
160	0

180	0
200	0
220	2
240	4
260	5
280	5
300	5
320	0
340	0
360	0

U31-RIB:ASN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-RIB:VAL-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U31-RIB:GLN-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0

200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-RIB:PHE-S2

20	0
40	0
60	0
80	5
100	5
120	5
140	4
160	3
180	1
200	0
220	0
240	4
260	5
280	5
300	0
320	4
340	3
360	1

C-RIB:LEU-S2

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	1
200	0
220	0
240	5
260	8
280	8
300	7
320	6
340	4
360	1

C31-P:LEU-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0

220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

H2U-RIB:ARG-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R6:ASN-S2

20	0
40	0
60	4
80	5
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	5
280	6
300	5
320	4
340	3
360	0

A-R5:HIS-CA

20	0
40	1
60	2
80	2
100	2
120	2
140	0
160	1
180	0
200	0
220	1

240	2
260	2
280	2
300	2
320	2
340	1
360	0

U-Y:ALA-S1

20	0
40	2
60	3
80	5
100	5
120	5
140	4
160	3
180	0
200	0
220	0
240	3
260	5
280	5
300	5
320	4
340	3
360	0

A-R5:TRP-CA

20	0
40	0
60	0
80	1
100	1
120	1
140	1
160	0
180	0
200	0
220	0
240	1
260	1
280	1
300	0
320	1
340	0
360	0

5BU-RIB:ARG-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0

260	0
280	0
300	0
320	0
340	0
360	0

H2U-MY:TRP-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:GLU-S1

20	0
40	1
60	3
80	5
100	5
120	0
140	3
160	3
180	1
200	0
220	2
240	3
260	5
280	5
300	5
320	0
340	3
360	0

FHU-MY:THR-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0

280	0
300	0
320	0
340	0
360	0

A-RIB:PRO-CA

20	0
40	2
60	3
80	5
100	5
120	5
140	4
160	3
180	1
200	0
220	0
240	3
260	5
280	5
300	5
320	4
340	3
360	0

IU-P:LYS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:SER-CA

20	0
40	2
60	4
80	6
100	6
120	6
140	4
160	3
180	0
200	0
220	2
240	4
260	6
280	6

300 6
320 5
340 3
360 1

U31-RIB:TYR-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C31-RIB:ASP-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

M2G-P:GLU-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0

320 0
340 0
360 0

FMU-MY:GLN-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C-P:ASP-S2

20 0
40 2
60 4
80 5
100 5
120 5
140 4
160 3
180 1
200 0
220 2
240 4
260 5
280 5
300 5
320 4
340 3
360 1

FHU-RIB:ASP-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0

340 0
360 0
A-RIB:CYS-CA

20 0
40 0
60 0
80 1
100 1
120 1
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 1
300 0
320 1
340 0
360 0

U-P:PRO-CA

20 0
40 1
60 2
80 2
100 3
120 2
140 2
160 1
180 0
200 0
220 1
240 2
260 2
280 3
300 2
320 2
340 1
360 0

FMU-P:GLN-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0

360 0
U31-MY:THR-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

G-RIB:CYS-CA

20 0
40 0
60 0
80 0
100 0
120 1
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 1
300 1
320 0
340 0
360 0

U34-RIB:ASN-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FHU-MY:ASP-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C31-MY:PHE-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

U31-MY:GLN-S2

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

A-R5:GLU-S1

20	0
40	3
60	6
80	9
100	9
120	8
140	7
160	5
180	0
200	0
220	3
240	6
260	9
280	9
300	9
320	7
340	5
360	2

A-R5:CYS-CA

20	0
40	0
60	0
80	1
100	1
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	1
300	0
320	0
340	0
360	0

G-P:TRP-S2

20	0
40	0
60	1
80	1
100	2
120	1
140	1
160	1
180	0
200	0
220	0
240	1
260	1
280	2
300	1
320	1
340	1
360	0

A-R5:PHE-S1

20	0
----	---

40	1
60	3
80	4
100	4
120	4
140	0
160	0
180	0
200	0
220	1
240	3
260	4
280	4
300	4
320	0
340	0
360	0

U-RIB:CYS-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FMU-MY:ARG-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:ARG-CA

20	0
40	2

60	4
80	6
100	6
120	5
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

DA-M6:GLN-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-RIB:ASP-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-P:SER-CA

20	0
40	2
60	4

80	6
100	6
120	6
140	4
160	3
180	1
200	0
220	2
240	4
260	6
280	6
300	6
320	5
340	3
360	1

G-P:PRO-S1

20	0
40	2
60	4
80	6
100	7
120	6
140	5
160	3
180	1
200	0
220	2
240	4
260	6
280	7
300	6
320	5
340	4
360	1

IU-MY:VAL-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-Y:VAL-CA

20	0
40	1
60	3
80	4

100	4
120	0
140	3
160	2
180	0
200	0
220	0
240	3
260	4
280	4
300	4
320	3
340	2
360	0

U-Y:ILE-CA

20	0
40	0
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	0
240	2
260	3
280	3
300	3
320	2
340	2
360	0

FMU-RIB:VAL-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

FHU-RIB:LYS-CA

20	0
40	0
60	0
80	0
100	0

120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

A-R6:HIS-CA

20	0
40	0
60	2
80	2
100	2
120	2
140	2
160	1
180	0
200	0
220	0
240	2
260	2
280	2
300	2
320	2
340	1
360	0

G-RIB:MET-S1

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	2
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	3
340	2
360	0

G-R6:TYR-S2

20	0
40	0
60	3
80	4
100	5
120	4

140	3
160	2
180	0
200	0
220	1
240	3
260	4
280	5
300	4
320	3
340	2
360	1

FHU-MY:GLY-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C-P:GLN-CA

20	0
40	1
60	2
80	3
100	3
120	3
140	2
160	1
180	0
200	0
220	1
240	2
260	3
280	3
300	3
320	2
340	2
360	0

FHU-P:HIS-S2

20	0
40	0
60	0
80	0
100	0
120	0
140	0

160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C31-P:ASP-S1

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C31-P:THR-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

H2U-MY:ILE-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0

180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

FHU-RIB:ARG-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

IU-P:LEU-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0
200 0
220 0
240 0
260 0
280 0
300 0
320 0
340 0
360 0

C31-P:GLU-CA

20 0
40 0
60 0
80 0
100 0
120 0
140 0
160 0
180 0

200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

U-RIB:LYS-S2

20	0
40	1
60	3
80	4
100	4
120	4
140	3
160	2
180	1
200	0
220	1
240	3
260	4
280	4
300	4
320	3
340	2
360	1

H2U-MY:GLY-CA

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

5BU-RIB:ILE-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0

220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

C31-RIB:LEU-S1

20	0
40	0
60	0
80	0
100	0
120	0
140	0
160	0
180	0
200	0
220	0
240	0
260	0
280	0
300	0
320	0
340	0
360	0

G-R5:PHE-S1

20	0
40	0
60	4
80	5
100	5
120	0
140	4
160	3
180	0
200	0
220	2
240	4
260	5
280	5
300	5
320	4
340	0
360	0

A-R5:LYS-S1

20	0
40	3
60	5
80	7
100	8
120	7
140	6
160	4
180	0
200	0
220	3

240	5
260	8
280	8
300	7
320	6
340	4
360	1

A-R5:LEU-S2

20	0
40	0
60	7
80	9
100	10
120	9
140	7
160	0
180	2
200	0
220	4
240	7
260	10
280	10
300	9
320	8
340	6
360	0

EXPECTED_SITE

G:HIS-S2

WoCr	31
Sug	68
Hoo	35

C:GLU-CA

WoCr	67
Sug	147
Hoo	76

A:ASN-CA

WoCr	40
Sug	90
Hoo	47

C:LEU-CA

WoCr	72
Sug	159
Hoo	83

U:ASN-S2

WoCr	22
Sug	49
Hoo	25

G:ARG-CA

WoCr	87
Sug	193
Hoo	100

C:SER-CA

WoCr	45
Sug	100
Hoo	52

A:GLU-CA

WoCr	83
Sug	184

Hoo 96
G:GLN-CA
WoCr 46
Sug 102
Hoo 53
C:ASP-S2
WoCr 49
Sug 109
Hoo 57
C:VAL-S1
WoCr 60
Sug 133
Hoo 69
G:ALA-S1
WoCr 107
Sug 236
Hoo 123
C:GLN-S1
WoCr 29
Sug 65
Hoo 34
G:GLN-S1
WoCr 46
Sug 102
Hoo 53
U:LYS-S2
WoCr 39
Sug 86
Hoo 44
C:ASN-S2
WoCr 32
Sug 71
Hoo 37
A:LYS-S2
WoCr 70
Sug 156
Hoo 81
G:LYS-S1
WoCr 90
Sug 199
Hoo 103
C:GLU-S1
WoCr 66
Sug 147
Hoo 76
C:TRP-S1
WoCr 11
Sug 24
Hoo 12
G:TRP-CA
WoCr 17
Sug 38
Hoo 19
U:GLU-S1
WoCr 46
Sug 101
Hoo 52
G:GLU-S2

WoCr 103
Sug 227
Hoo 118
A:PHE-S1
WoCr 39
Sug 85
Hoo 44
G:CYS-CA
WoCr 14
Sug 31
Hoo 0
A:ASN-S2
WoCr 40
Sug 89
Hoo 46
G:ALA-CA
WoCr 107
Sug 236
Hoo 123
A:ASN-S1
WoCr 40
Sug 90
Hoo 47
G:LEU-CA
WoCr 113
Sug 250
Hoo 130
G:ASN-CA
WoCr 51
Sug 113
Hoo 58
A:TYR-S1
WoCr 33
Sug 74
Hoo 38
C:LEU-S2
WoCr 72
Sug 159
Hoo 83
U:MET-S1
WoCr 14
Sug 31
Hoo 16
C:TYR-S1
WoCr 26
Sug 59
Hoo 30
G:TRP-S1
WoCr 17
Sug 38
Hoo 19
U:THR-S1
WoCr 28
Sug 62
Hoo 32
C:MET-CA
WoCr 20
Sug 45

Hoo 23
C:LYS-S1
WoCr 57
Sug 127
Hoo 66
A:ILE-S1
WoCr 57
Sug 126
Hoo 65
C:ARG-S1
WoCr 56
Sug 123
Hoo 64
G:HIS-CA
WoCr 31
Sug 69
Hoo 36
G:GLN-S2
WoCr 46
Sug 101
Hoo 52
C:LEU-S1
WoCr 72
Sug 159
Hoo 83
U:LYS-CA
WoCr 39
Sug 87
Hoo 45
A:MET-CA
WoCr 25
Sug 56
Hoo 29
G:ASP-CA
WoCr 79
Sug 175
Hoo 91
C:ALA-S1
WoCr 68
Sug 150
Hoo 78
U:PRO-S1
WoCr 26
Sug 57
Hoo 30
C:PHE-CA
WoCr 31
Sug 68
Hoo 35
G:VAL-S1
WoCr 95
Sug 210
Hoo 109
A:TRP-S1
WoCr 13
Sug 30
Hoo 15
U:GLU-S2

WoCr 45
Sug 100
Hoo 52
U:GLN-S1
WoCr 20
Sug 45
Hoo 23
G:ARG-S2
WoCr 87
Sug 192
Hoo 100
G:TYR-S2
WoCr 42
Sug 92
Hoo 48
G:ASN-S2
WoCr 50
Sug 112
Hoo 58
A:HIS-CA
WoCr 25
Sug 55
Hoo 28
U:SER-S1
WoCr 31
Sug 69
Hoo 36
C:VAL-CA
WoCr 60
Sug 133
Hoo 69
G:GLY-CA
WoCr 91
Sug 202
Hoo 105
C:ASP-S1
WoCr 50
Sug 111
Hoo 58
A:HIS-S2
WoCr 24
Sug 54
Hoo 28
A:LEU-S2
WoCr 90
Sug 199
Hoo 104
U:TRP-CA
WoCr 7
Sug 16
Hoo 8
U:ASP-S2
WoCr 34
Sug 75
Hoo 39
A:TRP-CA
WoCr 13
Sug 30

Hoo 15
A:ALA-S1
WoCr 85
Sug 188
Hoo 98
G:HIS-S1
WoCr 31
Sug 69
Hoo 36
A:SER-S1
WoCr 57
Sug 125
Hoo 65
G:GLU-CA
WoCr 105
Sug 231
Hoo 120
U:VAL-CA
WoCr 41
Sug 92
Hoo 48
U:ASN-CA
WoCr 22
Sug 49
Hoo 25
C:ASP-CA
WoCr 50
Sug 111
Hoo 58
U:PHE-S2
WoCr 21
Sug 47
Hoo 24
U:TYR-S2
WoCr 18
Sug 40
Hoo 21
U:TYR-CA
WoCr 18
Sug 40
Hoo 21
C:LYS-CA
WoCr 57
Sug 127
Hoo 66
U:HIS-CA
WoCr 13
Sug 30
Hoo 15
C:GLU-S2
WoCr 65
Sug 145
Hoo 75
A:ALA-CA
WoCr 85
Sug 188
Hoo 98
G:ARG-S1

WoCr 87
Sug 193
Hoo 100
U:CYS-CA
WoCr 6
Sug 13
Hoo 7
U:LEU-S2
WoCr 49
Sug 110
Hoo 57
A:ASP-S2
WoCr 62
Sug 137
Hoo 71
U:ASN-S1
WoCr 22
Sug 49
Hoo 25
G:MET-S2
WoCr 32
Sug 70
Hoo 36
A:GLN-CA
WoCr 37
Sug 81
Hoo 42
U:ARG-CA
WoCr 38
Sug 85
Hoo 44
U:VAL-S1
WoCr 41
Sug 92
Hoo 48
A:PRO-CA
WoCr 47
Sug 105
Hoo 54
U:HIS-S1
WoCr 13
Sug 30
Hoo 15
U:PHE-CA
WoCr 21
Sug 47
Hoo 24
U:MET-S2
WoCr 14
Sug 31
Hoo 16
A:PRO-S1
WoCr 47
Sug 105
Hoo 54
G:ASP-S1
WoCr 79
Sug 175

Hoo 91
A:GLN-S2
WoCr 36
Sug 80
Hoo 42
U:ALA-CA
WoCr 47
Sug 103
Hoo 54
A:ARG-S1
WoCr 70
Sug 154
Hoo 80
U:CYS-S1
WoCr 6
Sug 13
Hoo 7
U:PHE-S1
WoCr 21
Sug 47
Hoo 24
C:GLN-CA
WoCr 29
Sug 65
Hoo 34
G:SER-S1
WoCr 71
Sug 157
Hoo 82
G:PHE-S1
WoCr 48
Sug 107
Hoo 56
G:SER-CA
WoCr 71
Sug 157
Hoo 82
U:MET-CA
WoCr 14
Sug 31
Hoo 16
C:ILE-S1
WoCr 45
Sug 101
Hoo 52
A:GLU-S2
WoCr 82
Sug 181
Hoo 94
U:HIS-S2
WoCr 13
Sug 30
Hoo 15
A:ARG-S2
WoCr 69
Sug 153
Hoo 80
G:PHE-S2

WoCr 48
Sug 107
Hoo 56
G:CYS-S1
WoCr 14
Sug 31
Hoo 0
A:PHE-S2
WoCr 38
Sug 85
Hoo 44
C:GLY-CA
WoCr 58
Sug 128
Hoo 67
G:TRP-S2
WoCr 17
Sug 38
Hoo 19
U:GLU-CA
WoCr 46
Sug 101
Hoo 53
G:TYR-S1
WoCr 42
Sug 93
Hoo 48
U:GLN-S2
WoCr 20
Sug 44
Hoo 23
A:HIS-S1
WoCr 25
Sug 55
Hoo 28
G:LYS-CA
WoCr 90
Sug 199
Hoo 104
U:ILE-CA
WoCr 31
Sug 69
Hoo 36
A:MET-S1
WoCr 25
Sug 56
Hoo 29
C:TRP-CA
WoCr 11
Sug 24
Hoo 12
G:ASN-S1
WoCr 51
Sug 113
Hoo 58
G:PRO-CA
WoCr 59
Sug 131

Hoo 68
A:THR-CA
WoCr 51
Sug 114
Hoo 59
G:LEU-S1
WoCr 113
Sug 250
Hoo 130
A:ILE-CA
WoCr 57
Sug 126
Hoo 65
G:ILE-CA
WoCr 72
Sug 158
Hoo 82
A:ARG-CA
WoCr 70
Sug 154
Hoo 80
C:HIS-S2
WoCr 19
Sug 43
Hoo 22
C:ASN-CA
WoCr 32
Sug 72
Hoo 37
U:GLY-CA
WoCr 40
Sug 88
Hoo 46
A:GLY-CA
WoCr 73
Sug 161
Hoo 84
G:PRO-S1
WoCr 59
Sug 131
Hoo 68
A:LEU-CA
WoCr 90
Sug 200
Hoo 104
C:HIS-CA
WoCr 20
Sug 44
Hoo 23
C:THR-S1
WoCr 41
Sug 91
Hoo 47
C:CYS-S1
WoCr 9
Sug 20
Hoo 10
C:HIS-S1

WoCr 20
Sug 44
Hoo 23
A:TYR-CA
WoCr 33
Sug 74
Hoo 38
A:LEU-S1
WoCr 90
Sug 200
Hoo 104
A:CYS-S1
WoCr 11
Sug 25
Hoo 13
A:CYS-CA
WoCr 11
Sug 25
Hoo 13
C:PHE-S2
WoCr 31
Sug 68
Hoo 35
G:ASP-S2
WoCr 78
Sug 171
Hoo 89
C:CYS-CA
WoCr 9
Sug 20
Hoo 10
G:LEU-S2
WoCr 113
Sug 250
Hoo 130
A:ASP-CA
WoCr 63
Sug 139
Hoo 72
U:LEU-CA
WoCr 50
Sug 110
Hoo 57
G:TYR-CA
WoCr 42
Sug 93
Hoo 48
U:LYS-S1
WoCr 39
Sug 87
Hoo 45
U:ARG-S2
WoCr 38
Sug 84
Hoo 44
C:ILE-CA
WoCr 45
Sug 101

Hoo 52
G:GLU-S1
WoCr 104
Sug 230
Hoo 120
G:ILE-S1
WoCr 72
Sug 158
Hoo 82
A:ASP-S1
WoCr 63
Sug 139
Hoo 72
U:SER-CA
WoCr 31
Sug 69
Hoo 36
U:PRO-CA
WoCr 26
Sug 57
Hoo 30
U:ILE-S1
WoCr 31
Sug 69
Hoo 36
C:TYR-CA
WoCr 26
Sug 59
Hoo 30
U:TRP-S1
WoCr 0
Sug 16
Hoo 8
C:LYS-S2
WoCr 56
Sug 124
Hoo 65
G:MET-CA
WoCr 32
Sug 71
Hoo 37
C:ARG-S2
WoCr 55
Sug 122
Hoo 64
U:ARG-S1
WoCr 38
Sug 85
Hoo 44
C:PHE-S1
WoCr 31
Sug 68
Hoo 35
A:LYS-S1
WoCr 72
Sug 159
Hoo 82
A:VAL-S1

WoCr 76
Sug 167
Hoo 87
A:PHE-CA
WoCr 39
Sug 85
Hoo 44
C:THR-CA
WoCr 41
Sug 91
Hoo 47
A:TRP-S2
WoCr 13
Sug 30
Hoo 15
C:PRO-CA
WoCr 38
Sug 84
Hoo 43
A:MET-S2
WoCr 25
Sug 56
Hoo 29
C:SER-S1
WoCr 45
Sug 100
Hoo 52
C:ALA-CA
WoCr 68
Sug 150
Hoo 78
G:PHE-CA
WoCr 48
Sug 107
Hoo 56
C:ARG-CA
WoCr 56
Sug 123
Hoo 64
U:ALA-S1
WoCr 47
Sug 103
Hoo 54
C:MET-S2
WoCr 20
Sug 45
Hoo 23
C:MET-S1
WoCr 20
Sug 45
Hoo 23
A:GLN-S1
WoCr 37
Sug 81
Hoo 42
A:GLU-S1
WoCr 83
Sug 184

Hoo 96
U:ASP-S1
WoCr 34
Sug 76
Hoo 40
A:LYS-CA
WoCr 72
Sug 159
Hoo 83
U:ASP-CA
WoCr 34
Sug 76
Hoo 40
U:THR-CA
WoCr 28
Sug 62
Hoo 32
C:TRP-S2
WoCr 11
Sug 24
Hoo 12
G:MET-S1
WoCr 32
Sug 71
Hoo 37
C:GLN-S2
WoCr 29
Sug 64
Hoo 33
U:TRP-S2
WoCr 7
Sug 16
Hoo 8
C:ASN-S1
WoCr 32
Sug 72
Hoo 37
A:TYR-S2
WoCr 33
Sug 74
Hoo 38
C:TYR-S2
WoCr 26
Sug 59
Hoo 30
U:TYR-S1
WoCr 18
Sug 40
Hoo 21
U:GLN-CA
WoCr 20
Sug 45
Hoo 23
A:SER-CA
WoCr 57
Sug 125
Hoo 65
G:THR-S1

WoCr 64
Sug 142
Hoo 74
G:LYS-S2
WoCr 88
Sug 195
Hoo 102
A:THR-S1
WoCr 51
Sug 114
Hoo 59
A:VAL-CA
WoCr 76
Sug 167
Hoo 87
G:THR-CA
WoCr 64
Sug 142
Hoo 74
U:LEU-S1
WoCr 50
Sug 110
Hoo 57
C:PRO-S1
WoCr 38
Sug 84
Hoo 43
G:VAL-CA
WoCr 95
Sug 210
Hoo 109