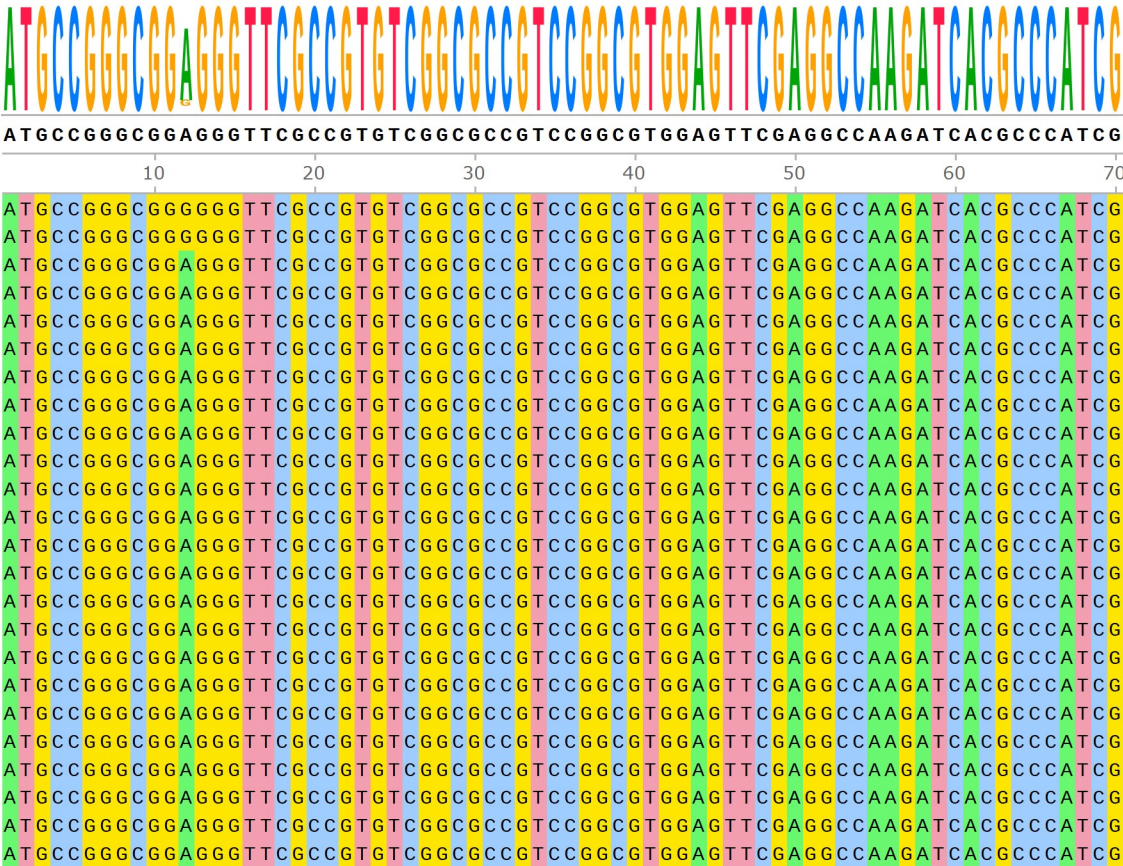


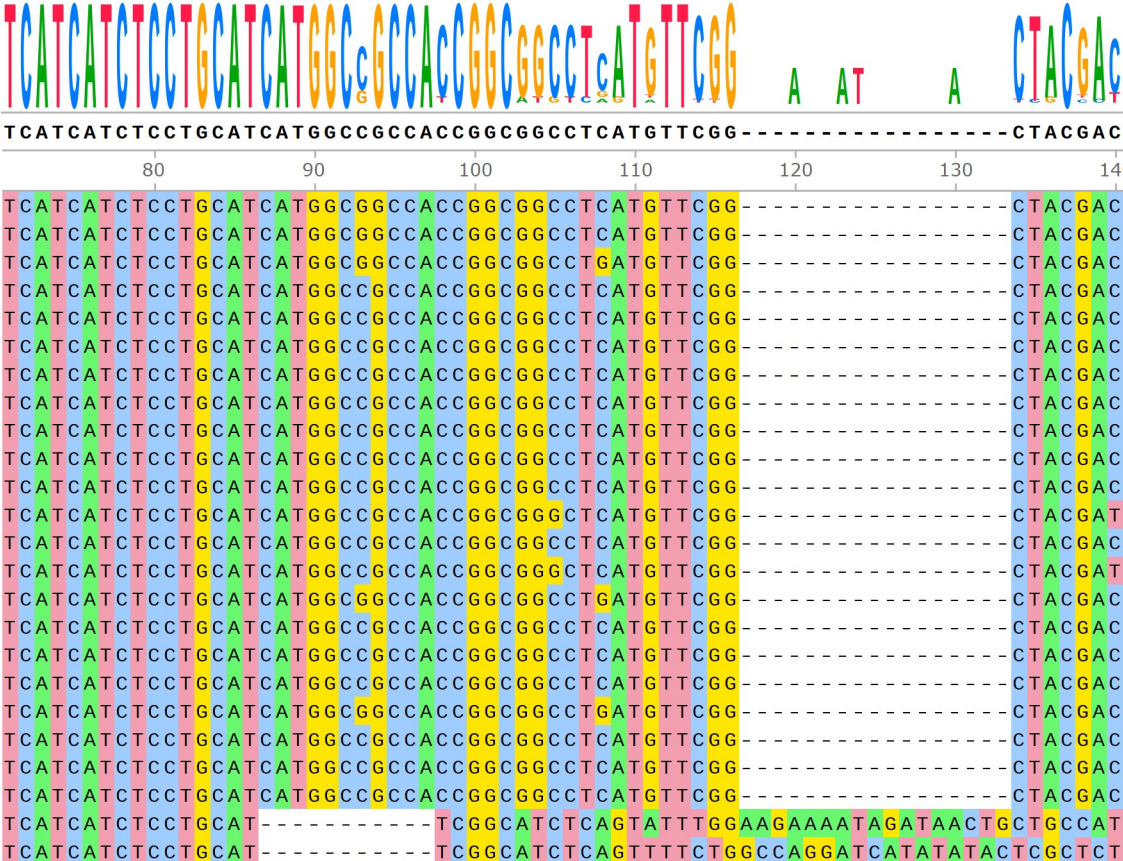
Consensus

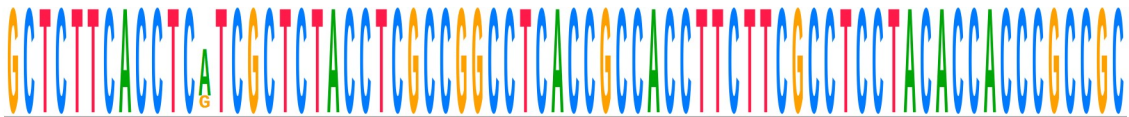
Lr67(sus)
Lr67(res)
ScLr67_1 (Lo7)
118_Danko_APR
119_Danko_APR
119_Danko_APR2
120_Danko_APR
138_Danko_APR
153_Danko_APR
157_Danko_APR
160_Danko_APR
71_PHR_APR
149_PHR_APR
59_Danko_non-APR
61_Danko_non-APR
123_Danko_non-APR
129_Danko_non-APR
37_PHR_non-APR
52_PHR_non-APR
88_PHR_non-APR
101_PHR_non-APR
105_PHR_non-APR
150_PHR_non-APR
150_PHR_non-APR2



Consensus

Lr67(sus)
Lr67(res)
ScLr67_1 (Lo7)
118_Danko_APR
119_Danko_APR
119_Danko_APR2
120_Danko_APR
138_Danko_APR
153_Danko_APR
157_Danko_APR
160_Danko_APR
71_PHR_APR
149_PHR_APR
59_Danko_non-APR
61_Danko_non-APR
123_Danko_non-APR
129_Danko_non-APR
37_PHR_non-APR
52_PHR_non-APR
88_PHR_non-APR
101_PHR_non-APR
105_PHR_non-APR
150_PHR_non-APR
150_PHR_non-APR2





Consensus GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC

290 300 310 320 330 340 350

Lr67(sus)	GCTCTTCACCTCGTCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
Lr67(res)	GCTCTTCACCTCGTCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
ScLr67_1 (Lo7)	GCTCTTCACCTCGTCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
118_Danko_APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
119_Danko_APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
119_Danko_APR2	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
120_Danko_APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
138_Danko_APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
153_Danko_APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
157_Danko_APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
160_Danko_APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
71_PHR_APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
149_PHR_APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
59_Danko_non-APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
61_Danko_non-APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
123_Danko_non-APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
129_Danko_non-APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
37_PHR_non-APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
52_PHR_non-APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
88_PHR_non-APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
101_PHR_non-APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
105_PHR_non-APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	318
150_PHR_non-APR	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	339
150_PHR_non-APR2	GCTCTTCACCTCATCGCTCTACCTCGCCGGCCTCACCGCCACCTTCTTCGCTCCTACACCACCCGCCGC	321



Consensus CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG

360 370 380 390 400 410 420

Lr67(sus)	CTCGGACGCCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
Lr67(res)	CTCGGACGCCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
ScLr67_1 (Lo7)	CTCGGCCGCCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
118_Danko_APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
119_Danko_APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
119_Danko_APR2	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
120_Danko_APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
138_Danko_APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
153_Danko_APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
157_Danko_APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
160_Danko_APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
71_PHR_APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
149_PHR_APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
59_Danko_non-APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
61_Danko_non-APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
123_Danko_non-APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
129_Danko_non-APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
37_PHR_non-APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
52_PHR_non-APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
88_PHR_non-APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
101_PHR_non-APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
105_PHR_non-APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	388
150_PHR_non-APR	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	409
150_PHR_non-APR2	CTCGGCCGGCGCCTCACCATGCTCATCGCCGGCGTCTTCTTCATCATCGGCGTCATCTTCAACGGGGCCG	391



Consensus

Lr67(sus)	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
Lr67(res)	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
ScLr67_1 (Lo7)	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
118_Danko_APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
119_Danko_APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
119_Danko_APR2	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
120_Danko_APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
138_Danko_APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
153_Danko_APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
157_Danko_APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
160_Danko_APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
71_PHR_APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
149_PHR_APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
59_Danko_non-APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
61_Danko_non-APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
123_Danko_non-APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
129_Danko_non-APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
37_PHR_non-APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
52_PHR_non-APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
88_PHR_non-APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
101_PHR_non-APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
105_PHR_non-APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	458
150_PHR_non-APR	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	479
150_PHR_non-APR2	CCCAGAACCTCGCCATGCTCATCATCGGCAGGATCCTGCTTGCTTGCGGCGTCTGGTTTCGCCAACCAAGGC	461



Consensus

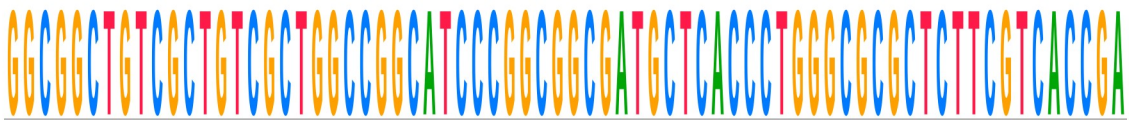
Lr67(sus)	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
Lr67(res)	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
ScLr67_1 (Lo7)	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
118_Danko_APR	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
119_Danko_APR	TGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
119_Danko_APR2	TGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
120_Danko_APR	TGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
138_Danko_APR	TGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
153_Danko_APR	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
157_Danko_APR	TGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
160_Danko_APR	TGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
71_PHR_APR	TGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
149_PHR_APR	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
59_Danko_non-APR	TGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
61_Danko_non-APR	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
123_Danko_non-APR	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
129_Danko_non-APR	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
37_PHR_non-APR	TGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
52_PHR_non-APR	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
88_PHR_non-APR	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
101_PHR_non-APR	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
105_PHR_non-APR	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	528
150_PHR_non-APR	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	549
150_PHR_non-APR2	CGTTCCCTGTTCTGTCTGAGATCGCGCCGACGAGGATCCGCGGCGGGCTGAACATCCTGTTCCAGCTG	531



Consensus AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT

570 580 590 600 610 620 630

Lr67(sus)	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTACGGCACGAGCAAGATCCACCCGTGGGGCT	598
Lr67(res)	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTACGGCACGAGCAAGATCCACCCGTGGGGCT	598
ScLr67_1 (Lo7)	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
118_Danko_APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
119_Danko_APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
119_Danko_APR2	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
120_Danko_APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
138_Danko_APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
153_Danko_APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
157_Danko_APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
160_Danko_APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
71_PHR_APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
149_PHR_APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
59_Danko_non-APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
61_Danko_non-APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
123_Danko_non-APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
129_Danko_non-APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
37_PHR_non-APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
52_PHR_non-APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
88_PHR_non-APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
101_PHR_non-APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
105_PHR_non-APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	598
150_PHR_non-APR	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	619
150_PHR_non-APR2	AACGTGACCATCGGCATCCTGTTTCGCGAACCTGGTGAACCTCCGGCACCAGCAAGATCCACCCGTGGGGCT	601



Consensus GGC GGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA

640 650 660 670 680 690 700

Lr67(sus)	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
Lr67(res)	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
ScLr67_1 (Lo7)	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
118_Danko_APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
119_Danko_APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
119_Danko_APR2	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
120_Danko_APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
138_Danko_APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
153_Danko_APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
157_Danko_APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
160_Danko_APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
71_PHR_APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
149_PHR_APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
59_Danko_non-APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
61_Danko_non-APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
123_Danko_non-APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
129_Danko_non-APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
37_PHR_non-APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
52_PHR_non-APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
88_PHR_non-APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
101_PHR_non-APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
105_PHR_non-APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	668
150_PHR_non-APR	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	689
150_PHR_non-APR2	GGCGGCTGTCGCTGTCGCTGGCCGGCATCCCGGGCGGCGATGCTCACCCTGGGCGCGCTCTTCGTCAACCGA	671

CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAGGAGGGCAAGGCGGTGCTGAAGCGGATCCGCGGC

Consensus

CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG-----

	710	720	730	740	750	760	770	
Lr67(sus)	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
Lr67(res)	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
ScLr67_1 (Lo7)	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
118_Danko_APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
119_Danko_APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAGGAGGGGCAAGGCGGTGCTGAAGCGGATCCGCGGC	-----	-----	-----	-----	-----	-----	738
119_Danko_APR2	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAGGAGGGGCAAGGCGGTGCTGAAGCGGATCCGCGGC	-----	-----	-----	-----	-----	-----	738
120_Danko_APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
138_Danko_APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
153_Danko_APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
157_Danko_APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
160_Danko_APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
71_PHR_APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
149_PHR_APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
59_Danko_non-APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
61_Danko_non-APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
123_Danko_non-APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
129_Danko_non-APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
37_PHR_non-APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
52_PHR_non-APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
88_PHR_non-APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
101_PHR_non-APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
105_PHR_non-APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	705
150_PHR_non-APR	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	726
150_PHR_non-APR2	CACCCCCAACAGCCTCATCGAGCGCGGCCACCTGGAG	-----	-----	-----	-----	-----	-----	708

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Consensus

	780	790	800	810	820	830	840	
Lr67(sus)	-----	-----	-----	-----	-----	-----	-----	705
Lr67(res)	-----	-----	-----	-----	-----	-----	-----	705
ScLr67_1 (Lo7)	-----	-----	-----	-----	-----	-----	-----	705
118_Danko_APR	-----	-----	-----	-----	-----	-----	-----	705
119_Danko_APR	ACCGACAACGTGC	-----	-----	-----	-----	-----	-----	751
119_Danko_APR2	ACCGACAACATCCACCGTGGGGCTGGCGGCTGTCGCTGTCGCTGGCCGGCATCCCCGGCGGCATGCTCA	-----	-----	-----	-----	-----	-----	808
120_Danko_APR	-----	-----	-----	-----	-----	-----	-----	705
138_Danko_APR	-----	-----	-----	-----	-----	-----	-----	705
153_Danko_APR	-----	-----	-----	-----	-----	-----	-----	705
157_Danko_APR	-----	-----	-----	-----	-----	-----	-----	705
160_Danko_APR	-----	-----	-----	-----	-----	-----	-----	705
71_PHR_APR	-----	-----	-----	-----	-----	-----	-----	705
149_PHR_APR	-----	-----	-----	-----	-----	-----	-----	705
59_Danko_non-APR	-----	-----	-----	-----	-----	-----	-----	705
61_Danko_non-APR	-----	-----	-----	-----	-----	-----	-----	705
123_Danko_non-APR	-----	-----	-----	-----	-----	-----	-----	705
129_Danko_non-APR	-----	-----	-----	-----	-----	-----	-----	705
37_PHR_non-APR	-----	-----	-----	-----	-----	-----	-----	705
52_PHR_non-APR	-----	-----	-----	-----	-----	-----	-----	705
88_PHR_non-APR	-----	-----	-----	-----	-----	-----	-----	705
101_PHR_non-APR	-----	-----	-----	-----	-----	-----	-----	705
105_PHR_non-APR	-----	-----	-----	-----	-----	-----	-----	705
150_PHR_non-APR	-----	-----	-----	-----	-----	-----	-----	726
150_PHR_non-APR2	-----	-----	-----	-----	-----	-----	-----	708

	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA 990100010101020103010401050	
Lr67(sus)	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGGAACCGCCCGCAGCTGGTCA	853
Lr67(res)	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGGAACCGCCCGCAGCTGGTCA	853
ScLr67_1 (Lo7)	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
118_Danko_APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
119_Danko_APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	943
119_Danko_APR2	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	1018
120_Danko_APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
138_Danko_APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
153_Danko_APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
157_Danko_APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
160_Danko_APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
71_PHR_APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
149_PHR_APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
59_Danko_non-APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
61_Danko_non-APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
123_Danko_non-APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
129_Danko_non-APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
37_PHR_non-APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
52_PHR_non-APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
88_PHR_non-APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
101_PHR_non-APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
105_PHR_non-APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	853
150_PHR_non-APR	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	874
150_PHR_non-APR2	CGCATCGCGCAGGAGGTTGAAGCACCCGTTCCGGAACCTGCTCCAGCGCCGCAACCGCCCGCAGCTGGTCA	856
	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT 1060107010801090110011101120	
Lr67(sus)	TGCGCGTGCTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
Lr67(res)	TGCGCGTGCTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
ScLr67_1 (Lo7)	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
118_Danko_APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
119_Danko_APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	1013
119_Danko_APR2	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	1088
120_Danko_APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
138_Danko_APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
153_Danko_APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
157_Danko_APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
160_Danko_APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
71_PHR_APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
149_PHR_APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
59_Danko_non-APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
61_Danko_non-APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
123_Danko_non-APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
129_Danko_non-APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
37_PHR_non-APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
52_PHR_non-APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
88_PHR_non-APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
101_PHR_non-APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
105_PHR_non-APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	923
150_PHR_non-APR	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	944
150_PHR_non-APR2	TGCGCGTGCTCCTCCAGATCTTCCAGCAGTTTACCAGGGGATCAACGCCATCATGTTCTACGCCCCCGTGCT	926

GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG

GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG

1130 1140 1150 1160 1170 1180 1190

Consensus

Lr67(sus)	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
Lr67(res)	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
ScLr67_1 (Lo7)	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
118_Danko_APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
119_Danko_APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	1083
119_Danko_APR2	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	1158
120_Danko_APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
138_Danko_APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
153_Danko_APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
157_Danko_APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
160_Danko_APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
71_PHR_APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
149_PHR_APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
59_Danko_non-APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
61_Danko_non-APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
123_Danko_non-APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
129_Danko_non-APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
37_PHR_non-APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
52_PHR_non-APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
88_PHR_non-APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
101_PHR_non-APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
105_PHR_non-APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	993
150_PHR_non-APR	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	1014
150_PHR_non-APR2	GTTCAACACGCTCGGGTTCAAGAGCGACGCGTCTACTCGGCGGTGATCACGGGCGCCGTCAACGTG	996

CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG

CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG

1200 1210 1220 1230 1240 1250 1260

Consensus

Lr67(sus)	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
Lr67(res)	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
ScLr67_1 (Lo7)	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
118_Danko_APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
119_Danko_APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1153
119_Danko_APR2	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1228
120_Danko_APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
138_Danko_APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
153_Danko_APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
157_Danko_APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
160_Danko_APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
71_PHR_APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
149_PHR_APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
59_Danko_non-APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
61_Danko_non-APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
123_Danko_non-APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
129_Danko_non-APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
37_PHR_non-APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
52_PHR_non-APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
88_PHR_non-APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
101_PHR_non-APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
105_PHR_non-APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1063
150_PHR_non-APR	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1084
150_PHR_non-APR2	CTGGCCACGCTGGTGTCTGGTGTACGCCGTGGACCGCGCCGGGCGGCGGCGCTGCTGCTGGAGGCGTGGCG	1066



Consensus CAAGTTCGCCATCTTCATCTTCTTCTCCGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC

1550 1560 1570 1580 1590 1600 1610

Lr67(sus)	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
Lr67(res)	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
ScLr67_1 (Lo7)	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
118_Danko_APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
119_Danko_APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1503
119_Danko_APR2	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1578
120_Danko_APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
138_Danko_APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
153_Danko_APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
157_Danko_APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
160_Danko_APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
71_PHR_APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
149_PHR_APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
59_Danko_non-APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
61_Danko_non-APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
123_Danko_non-APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
129_Danko_non-APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
37_PHR_non-APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
52_PHR_non-APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
88_PHR_non-APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
101_PHR_non-APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
105_PHR_non-APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1413
150_PHR_non-APR	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1434
150_PHR_non-APR2	CAAGTTCGCCATCTTCATCTTCTTCTC	GGCCTGGGTGCTCGTCATGTCCGTCTTCGTGCTCTTCTTCCCTC	1416



Consensus CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA

1620 1630 1640 1650 1660 1670 1680

Lr67(sus)	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
Lr67(res)	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
ScLr67_1 (Lo7)	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
118_Danko_APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
119_Danko_APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1573
119_Danko_APR2	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1648
120_Danko_APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
138_Danko_APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
153_Danko_APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
157_Danko_APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
160_Danko_APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
71_PHR_APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
149_PHR_APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
59_Danko_non-APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
61_Danko_non-APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
123_Danko_non-APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
129_Danko_non-APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
37_PHR_non-APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
52_PHR_non-APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
88_PHR_non-APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
101_PHR_non-APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
105_PHR_non-APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1483
150_PHR_non-APR	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1504
150_PHR_non-APR2	CCGGAGACCAAGAACGTGCCCATCGAGGAGATGACCGACAAGGTGTGGAAGCAGCACTGGTTCTGGAAGA	1486



Consensus	GATACATGGACGACGACGACCACC-----ACATCGCCAACGGCAAGAACGTCACCGTCTAA																			
	1690	1700	1710	1720	1730	1740														
Lr67(sus)	G	A	T	T	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
Lr67(res)	G	A	T	T	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
ScLr67_1 (Lo7)	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
118_Danko_APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
119_Danko_APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
119_Danko_APR2	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
120_Danko_APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
138_Danko_APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
153_Danko_APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
157_Danko_APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
160_Danko_APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
71_PHR_APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
149_PHR_APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
59_Danko_non-APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
61_Danko_non-APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
123_Danko_non-APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
129_Danko_non-APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
37_PHR_non-APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
52_PHR_non-APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
88_PHR_non-APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
101_PHR_non-APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
105_PHR_non-APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
150_PHR_non-APR	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C
150_PHR_non-APR2	G	A	T	A	C	A	T	G	G	A	C	G	A	C	G	A	C	C	A	C

Sequence Logo: 50% GC base composition

Consensus Threshold: >50%

Colors: 4-color highlighting

Created: 26 lis 2024

Last Modified: 26 lis 2024

