

CLUSTAL format alignment by MAFFT (v7.243)
Exon-exon borders are color-coded as follows: ora2 .xx. - ora3 .xx. .xx. .xx. - ora4 .xx.

Am-ORA1	-----MDLC----	ITIKGVSF
Fh-ORA1	-----MDLC----	VTIKGVSF
Pf-ORA1	-----MDLC----	VTIKGVSF
Xm-ORA1	-----MDLC----	VTIKGVSF
Sc-ORA1	-----	
Sr-ORA1	-----	
Hc-ORA1	-----MDLC----	VTIKGVSF
On-ORA1	-----MDLC----	VTIKGVSF
Ol-ORA1	-----MDLC----	VTIKGVSF
Ga-ORA1	-----MDLC----	VTIKGVSF
Ss-ORA1	M-----LDLC----	VTIKGMSF
Dr-ORA1	-----MDLC----	VTIKGVSF
Gm-ORA1	-----MDLC----	VTIKGVSF
Lo-ORA1	-----MDLC----	ITIKGVSF
Lo-ORA8a	-----G-----	
Lo-ORA8b	-----	
Lo-ORA7	-----MDLQ----	NLAKAVAT
Am-ORA2	-----MDLY----	FLTRGLLY
Fh-ORA2	MRG-----NHCLSGTRSASELPAFLPSAMPSD----	KLVRGWLF
Pf-ORA2	-----MIFYLYLLFSLSAGMPSN----	VNVRGMLF
Xm-ORA2	-----MPSN----	EDIRGMLF
Gm-ORA2	-----MPSE----	ELIRAMLY
Ga-ORA2	-----MPSE----	MFVRGMLY
Hc-ORA2	-----MASE----	VFVRGMLF
On-ORA2	-----MASE----	VFVRGMLY
Ss-ORA2	-----MQSE----	EVVRGMLY
Ol-ORA2	M-----AHSFVFLEPFFCAGMPSD----	DLVRRGLY
Tn-ORA2	MIV-----VTIILRDLLSISPGMQST----	EFVRGILY
Tr-ORA2	MKD-----Y----GGIILRDLFSSISTGMQSV----	EFVRGILY
Dr-ORA2	-----MIAE----	AVIRGLLF
Lo-ORA2	-----MDPQ----	VVIRGMLY
Am-ORA3	-----MWVNGTVTIIKATGGQL----	SSVPMALY
Fh-ORA3	-----MGLRTPV----	SPAQSAFY
Pf-ORA3	-----MQQUESTTKLLGMGLRTGV----	SPAQSAFY
Xm-ORA3	-----MEQETTTKLVGMGFRTAV----	SPAESDFY
Ga-ORA3	MAE-----HIGEDGESTLIGMGLRVSV----	SPVQTAFY
Tn-ORA3	MAA-----NTEDDTEVVGMGLRVSV----	SPVQTASY
Tr-ORA3	MAV-----NSMDEDDMELVGMGLRVSV----	SPFQTAFY
Ol-ORA3a	-----M----	SALQAVFY
Ol-ORA3b	MSAVSRMKTQLDLRPADDEAAAIKDF-VGPEGRDENPKHVGIGLQVPV----	SDVQIVCH
Gm-ORA3	-----MSEAEAEVLGMGLRTDA----	SPVQTTFY
Hc-ORA3	MSS-----LSDQRK--DLAGMRMHIFV----	SPAQTAFY
On-ORA3	MSS-----LSDQRKEPDLAGMGMRIFV----	SPAQTAFY
Ss-ORA3a	MET-----PMPELKELEPVGVGRLVTT----	SPTQTTFY
Ss-ORA3b	MET-----PMPELKELEPVGVGGLGVNR----	YPFQNALY
Dr-ORA3a	-----MAPQKKPVNISQRITS----	SPFYIMLY
Dr-ORA3b	-----MATTAKPLTVSQRALS----	SPLYIAFY
Lo-ORA3	-----MGEQTNKVVTVLLKAA----	IPAQNALY
Am-ORA4	-----M-EL----	LTIEAILF
Fh-ORA4	-----MSEI----	LTVDAILF
Pf-ORA4	-----MSEI----	LTVDAILF
Xm-ORA4	-----MAEV----	LTVEAILF
Hc-ORA4	-----MSKV----	LTVEAILF
On-ORA4	-----MSEV----	FTVEAILF
Ss-ORA4	-----MSEV----	LTVDAILF
Ol-ORA4	-----MSKV----	LTLDAILF
Tn-ORA4	-----MSEV----	LTVDAILF
Tr-ORA4	-----MSEV----	LTVDAILF
Gm-Ora4	-----MAEV----	LTVDAILF
Ga-ORA4	-----MSTR----	SNLHALRR
Dr-ORA4	-----MSEV----	LTVDVLF
Lo-ORA4	-----MAQV----	LPVDAILF
Am-ORA6	-----MESF----	IFGLLVLR
Dr-ORA6	-----MEQI----	QVNLLSLR
Fh-ORA6	-----MCHL----	SVYLFGLK
Pf-ORA6	-----MSDL----	SVDLQGLR
Xm-ORA6	-----MSHL----	SVDLLGLR
Ga-ORA6	-----MVGL----	SVDLLGLK
Hc-ORA6	-----MAEL----	SVNLLGLR
On-ORA6	-----MAEL----	SVNLLGLR
Tn-ORA6	-----MLAL----	SVQLLATR
Tr-ORA6	-----MLGL----	SVQLLATR
Gm-ORA6	-----MAKVEYKTMITLVTIR	
Ol-ORA6	-----MEGI----	YVNLLGLR
Lo-ORA6	-----MDLM----	NPVLLVLR
Ss-ORA6	-----M-----	VDTLELLVFR
Am-ORA5a	-----MNAK----	EWIKSTIR
Am-ORA5b	-----MDAE----	GWIKSVIR
Fh-ORA5	-----MDAD----	ELIESIIR
Pf-ORA5	-----MDAD----	KLVESIVR
Xm-ORA5	-----MDAD----	KLIQSIVR
Gm-ORA5	-----MDVD----	DIIESAVR
Ga-ORA5	-----MDAE----	GWIESLIR
Tn-ORA5	-----MDTK----	ELAESIIR
Tr-ORA5	-----MDAE----	ELVESIVR
Hc-ORA5	-----ME-----	GLIEAIIR
On-ORA5	-----ME-----	ELIESIIR
Ss-ORA5a	-----MDAT----	EWIEAFIR
Ss-ORA5b	-----MDAK----	DWIEALIR
Ol-ORA5	-----MELN----	KPIASVIS
Dr-ORA5	-----MQLQ----	DWVESSIR
Lo-ORA5	-----MDTV----	GVIESTVR

Am-ORA1 LLQTGLGI---MGNMLVLAAYGHIAL-VE-PRLQPVDQIMAHLAFANLML-----LL
Fh-ORA1 LLQTGMGI---LGNGVVLLAYASIIC-TE-PKLLPVDMILCHLAFANLML-----LL
Pf-ORA1 LLQTGLGI---LGNVVVLLAYASIIC-TE-PKLLPVDMILCHLAFANLML-----LL
Xm-ORA1 LLQTGLGI---LGNNAVLLAYASIIC-TE-PKLLPVDMILCHLAFANLML-----LL
Sc-ORA1 -----
Sr-ORA1 -----
Hc-ORA1 LLQTGMGV---LGNTVVLLAYTHIVC-TG-PKLLPVDMILCHLAFTNLLL-----LL
On-ORA1 LLQTGMGI---LGNTVVLLAYTHIVC-TG-PKLLPVDMILCHLAFANLLL-----LL
Ol-ORA1 LLQTGLGI---LGNSVVLLVYSHIMC-TG-PKLLPVDMILCHLAFANLIL-----LL
Ga-ORA1 LLQTGMGI---LGNTVVLLAYAQLIY-AE-PKLLPVDMILCHLAFANLML-----LL
Ss-ORA1 LLQTGLGF---LGNTLVLLAYTQVVC-SE-CRLQPVDIILCQLAFVDLIL-----IL
Dr-ORA1 LLQAGLGI---LANALVLLAYAHIRL-AE-ARLQPVDAILCHLALVDLLL-----LL
Gm-ORA1 LLQTGLGV---LGNALVLLAYVHIAHGAD-HKLLPTDLILCHLAFSNLVL-----LL
Lo-ORA1 LLQTGLGI---LGNLLVLLAYAHIAAC-SD-GRVQPVDKILCHLAFANLLL-----LL
Lo-ORA8a -----
Lo-ORA8b -----
Lo-ORA7 LLQNMVGI---PANLTVLGVFVHVAR-TE-RRLLPTDAIVSHLVSVNLLL-----IL
Am-ORA2 LFLPVFGV---PGNCAVIWAFLLALR-QE-GTLLPADAIVLHLACANLLV-----VS
Fh-ORA2 LSLAVVGI---PGNIAVIVAFLLLIL-QE-CFLLAADAIVLHLAFANLLV-----VL
Pf-ORA2 LSLTVVGV---PGNMAVIVAFLLLVL-QE-SWLLAADAIVLHLSCTNLLV-----VL
Xm-ORA2 LSLTVVGV---PGNMAVIVAFLLLIL-QE-SCLLAADAIVLHLSCTNLVV-----VL
Gm-ORA2 LTLTVVGV---PGNLAVIWAFLLALH-QE-RRLLPADTILLHLASVNLLV-----VG
Ga-ORA2 LSLTVLGV---PGNATVILAFLLLLLY-QE-RRLLPSDAIVLHLAFVNLLV-----VA
Hc-ORA2 LFLTVVGI---PGNATVIVAFLLLLLY-QE-KRLLAADSILLHLACVNLLV-----VV
On-ORA2 LSLTIVGI---PGNATVIVAFLLLLLY-QE-KRLLAADAILLHLACVNLLV-----VV
Ss-ORA2 LSLTVVGV---PGNTAVIVAFLLALY-QE-HQLLPADAIVLHLACANLLV-----VG
Ol-ORA2 ASLTIVGV---PGNILVIMAFLLLSY-EE-NRLLAAEAIVLHLTCANLLV-----VV
Tn-ORA2 LSLAVVGA---PGNTCVILAYFILLY-QE-KRLLPADVIIHLACANLLV-----VV
Tr-ORA2 LSLTVVGA---PGNICLILAYLILLH-QE-NRLLPADVIIHLSCVNLLV-----VV
Dr-ORA2 LSLVLVGV---PGNTAVICGFILLVR-RE-GRLSPADAIVLHLCSANLVV-----VS
Lo-ORA2 LFLVVVGV---PGNLAVIWAFCHIMR-SE-RKLPADAIVLHLAAVNLLV-----AA
Am-ORA3 MILVLLGI---FGNAIVISVVGESILREP-GGGRNSDMILVNMAFSNLMV-----SM
Fh-ORA3 IILVALGI---VGNAIVIGVIGKSVMDH-GGGHNSDIIINLAVSNFMV-----SV
Pf-ORA3 IILVALGI---VGNSIVIGVIGKSVLMDR-GPGHNSDIIIVNLAVSNLMV-----SI
Xm-ORA3 IILVALGI---VGNSIVIGVIGKNVMMDR-GPGHNSDIIIVNLAVSNLMV-----SI
Ga-ORA3 IMLVTLGI---LGNFTVVGIVIGKSIATDH-VGGRNSDIIINMALSSLLV-----SV
Tn-ORA3 IFLVLLGI---LGNTTVVGIVIGKSIIMDR-GGGRNSDIIIVNMALSNLLV-----SL
Tr-ORA3 IFLVLMGI---LGNATVVGVIGKSIIMDR-GGGRNSDIIIVNMALSNLLV-----SL
Ol-ORA3a AILVVLGV---LGNTTVIVVVGKSVIQDR-RVAHNSNIIINMAASNLMV-----SV
Ol-ORA3b VIMVVLAI---LGNATVIVVIGKSVIQDR-RVAHNSNIIINMAVSNLMV-----SI
Gm-ORA3 ILLVLFGI---VGNTTVIGVIGHSVLMNP-GVGRNSDIIINMAVSNLMV-----SV
Hc-ORA3 IILVIMGI---LGNTTVILVIGKSIILEH-NWGRNSDIIIVNMAMSNLLV-----SL
On-ORA3 IILVIMGI---LGNTTVILVIGKSIILEH-NWGRNSDIIIVNMAMSNLLV-----SL
Ss-ORA3a IILVLLGI---VGNTTVIGVMLDSVFKDP-SGVRNSDIIIMNMALSNLLV-----SV
Ss-ORA3b IIFVLLGI---VGNATVVGVISESVFKDP-SGGRNSDIIILINMALSNLLL-----SL
Dr-ORA3a VVLVLLGN---AGNTTVIAVVGQSLLQET-GTVRSSDVILVNMAFSNLMV-----SL
Dr-ORA3b VILVLLGN---LGNSLVIGVVGEGLLREP-GVARSSDIIILVNMALSNLMV-----SL
Lo-ORA3 GLLVMLGI---VGNGLVMGVGRGLVKEG-LARQHSDIILLNLVLSNLLV-----SL
Am-ORA4 GFLVFSGI---LGNMLVLYAVFQCALDNPSHHLSPSDIILLNISMANLLT-----SM
Fh-ORA4 GLLVFSGI---LGNILVIHVVVFQSALESPSRRLPPSDTILVHLSLANLLT-----SL
Pf-ORA4 GLFVFSGI---LGNILVIHVVVFQSALESPSRRLPPSDTILVHLSLANLLT-----SL
Xm-ORA4 GLLVFSGI---LGNILVIHVVVFQSALESPSRRLPPSDTILVHLSLANLLT-----SL
Hc-ORA4 GVLVFSGI---LGNILVIYVVFQSVTKTPRRRLPPSDIILVHLSLANLLS-----SL
On-ORA4 GLLVFSGI---LGNILVIYVVFQSVTKTPRRRLPPSDIILVHLSLANLLS-----SL
Ss-ORA4 GFLVFSGI---LGNILVIHVVVFQSAIESLSRRLPPSDTILVNLSLANLLT-----SL
Ol-ORA4 GLLVFSGL---LGNTLVIYAVFQSAFETPPGRLSPSDTILVHLSLANLLT-----SL
Tn-ORA4 GLLVFSGI---LGNILVIHVVVLQAAFQGTSGRLPLSDTILVHLSLANLLT-----SL
Tr-ORA4 GLLVFSGI---LGNFLVIHVVVLQAAFQASRRLPLSDTILVHLSLANLLT-----SL
Gm-Or4 GLLVFTGI---MGNIMVMHTVCQSAMQSQSRMPASDTILVHLSLANLLT-----SL
Ga-ORA4 S-LMFSDAQRNCGKCLRLH-VFQSAFESPSRRLPPSDTILVHLSLANLLT-----SL
Dr-ORA4 GLLVFSGI---IGNIM-----VFDCAKLCASRHLPPSDTILVHLCLANLLT-----SV
Lo-ORA4 GVLVLSGI---VGNVLVICAVVQSVLQNSLLRIPPSDIILANLSLANLLT-----SF
Am-ORA6 IMLSVIGV---LGNTVLIVSILQM-----TRLKTFEVFLLGLAVSNLEE-----IM
Dr-ORA6 LFIISIIGV---VGNTLLLVSIILTH-----THLKSFEFLFLALCSANLQQ-----LV
Fh-ORA6 TFISCIGF---VGNIFLIVSIFQTAV----SHVKPFELFLLGLASANLEE-----IV
Pf-ORA6 MFVSCVGL---VGNIFLILSIFQTRV----SNIKSFEFLFLGLASVNLEE-----IV
Xm-ORA6 LFVSCVGL---VGNIFLILFIFQTRV----SHIKSFEFLFLGLASFNLEE-----IV
Ga-ORA6 VFILCVGL---MGNVFLMVAVAQTKF----PRVKSFEFLFLGLAAANLEE-----IA
Hc-ORA6 LVFSSIGL---MGNTVLIASIIKINF----FHIKSFEIFLFLGLAAANLWE-----IV
On-ORA6 LVFSSVGL---MGNTILIASIIKINF----FHIKSFEIFLFLGLAAANLWE-----IV
Tn-ORA6 IIIISCIGI---FGNVFLIISVVQTKF----SRIKSFEFLFLELAAANLEE-----IF
Tr-ORA6 IIIISCIGI---FGNVFLIVSVVQNKF----SQIKSFEFLFLELAAANLEE-----IL
Gm-ORA6 FVMSLIGI---MGNMFLVFVIFQTKI----SRIKSFEVFLFLGLAVSNLEE-----LV
Ol-ORA6 IAVSFTGL---VGNVCLILSIIHVKW----SHIKSFEVFLFLGLAAANLEE-----IV
Lo-ORA6 YLISIVGI---IGNITLVVVISLSH-----SHMKTFEIFLLGLSFSNLEG-----IF
Ss-ORA6 IFISTVGI---VGYVVLILSLIKNQI----SCLKTFEVFLFLGLAASNLVAPNHNVPHHL
Am-ORA5a GFMCVSGI---LGNNWLGFCSLPKSR----SQLRTNNILFINLAISNLIT-----NY
Am-ORA5b GLMCVSGI---IGNHWLGFSA LPKSR----AHLKTNDILFVN LASSNLIT-----NY
Fh-ORA5 ALMFIAGI---LGNNWLAITSLPKRR----SDIRTNEILLVNLAVSNLIT-----NC
Pf-ORA5 ILMFIAGI---LGNNWLAIASLP RKK----SEIRTNEILLINLAVSNLIT-----NY
Xm-ORA5 ILMFIAGI---LGNNLLVIASLP RKK----SEIRTNEILLINLAVSNLIT-----NY
Gm-ORA5 ALMFL LGM---LGNNWLAVRSIPSR L----SALRTNELLFLNLAVSNLIT-----NY
Ga-ORA5 ALMFLAGI---LGNNWLAI RSLPGHK----SSIRTNEVLFINLAVSNLIT-----NY
Tn-ORA5 GMMFLAGI---LGNNYLAARSFPTQR----TSIRTNEVLFINLAVSNLIT-----NY
Tr-ORA5 GLMFLAGV---LGNNWLAVRSFPTQR----SSVRTNEVLFINLALS NLIT-----NY
Hc-ORA5 ALMFIAGI---LGNNWLAICSLPRHK----SSIRTNEVLFINLAISNLIT-----NY
On-ORA5 GLMFIAGI---LGNNWLAICSLPRHK----SSIRTNEVLFINLAISNLIT-----NY
Ss-ORA5a GLMCLLGI---LGNNWCL RSLPGPK----SSLRTNEVLFINLAVSNLIT-----NY
Ss-ORA5b GLMCLVGI---LGNNWLG RSLPGPK----SHLRTNELLFINLAVSNLIT-----NY
Ol-ORA5 ALMFLASI---LGNNWLAVASLPKDR----SAIRTNEVLFINLAVSNLIT-----NY
Dr-ORA5 AFFCVTGI---TGNFWLAL RSLPRSR----SRLRPNDVLFINLAVSNLIT-----NC
Lo-ORA5 ASMCFLGI---MGNSMLVLHSLPSKR----SHLKTSEVLFINLAASN LIT-----NC

Am-ORA1	TRGVPQMTMTVFGLRHLLNDSG-----CKVVIY--T
Fh-ORA1	TRCVPQMTMTVFGLKGLLNDPG-----CKVVIY--A
Pf-ORA1	TRCVPQMTMTVFGLKDLLNDPG-----CKVVIY--A
Xm-ORA1	TRCVPQMTMTVFGLKDLLNDPG-----CKAVIY--A
Sc-ORA1	-----
Sr-ORA1	-----
Hc-ORA1	TRSVPPSMTVFGLKALLNDPG-----CKVVIY--A
On-ORA1	TRCVPQMTMTVFGLKDLLNDPG-----CKVVIY--A
Ol-ORA1	TRCVPQMTMTVFGLKDLLNDPG-----CKVVIY--A
Ga-ORA1	TRCVPQMTMSVFGLRDLLGDPG-----CKVVIY--A
Ss-ORA1	TRCIPQMTMTVFGLRDLLNDPG-----CKVVVY--S
Dr-ORA1	TRGVPQMTMTVFGMRNLLDDTG-----CKVVIY--T
Gm-ORA1	TRCVPQMTMTVFGLHDLDDAG-----CKVVIY--L
Lo-ORA1	TRCVPQMTMTVFGLKDLLNDSG-----CKAVIY--A
Lo-ORA8a	-----
Lo-ORA8b	-----
Lo-ORA7	TRGIPQSLSALDYRGFYDSAT-----CKFLIF--T
Am-ORA2	CRCVFEVFANFQVFNGFNDPG-----CKGIYF--I
Fh-ORA2	VRCLLEALASFHLANVFGDVG-----CKAVIF--I
Pf-ORA2	VRCLMETLASFHLANVFGDVG-----CKAVIF--I
Xm-ORA2	VRCLMETLASFHLANVFGDIG-----CKGVIF--I
Gm-ORA2	VRCLLETLASFRLASVFGDTG-----CKSVIF--V
Ga-ORA2	ARCLPETLASFRLSGIFGDVG-----CKAVIF--V
Hc-ORA2	VRALTETLASFRLADIFGDTG-----CKSVIF--I
On-ORA2	VRALTETLASFRLADIFGDTG-----CKSVIF--I
Ss-ORA2	VRCLLETLATFRLVNIIFGDTG-----CQGVIF--V
Ol-ORA2	VRCLTETLASFHVVNVFGDAG-----CKGVIF--I
Tn-ORA2	ARCFLEFLASFRLALIFGDVG-----CKSVIF--V
Tr-ORA2	ARCLLEFLASFHLAIIIFGDVG-----CKSVIF--V
Dr-ORA2	VRCLLEVLATFRIHNVFDDAG-----CRAVIF--L
Lo-ORA2	VRCSFEALAAFVGLYVFNNTG-----CKTIIF--I
Am-ORA3	TRNMLLVISDTGLEVLPGKDW-----CQILMG--V
Fh-ORA3	VRNVLLIVSDLGIQMYSSKGW-----CQFLMG--V
Pf-ORA3	VRNLLLIISDLGFKLYSSKGW-----CQFLMG--V
Xm-ORA3	MRNLLLIISDLGFKLYSSKGW-----CQFLMG--V
Ga-ORA3	MRNIPLVISDIGLEYSSKEW-----CQVLMG--L
Tn-ORA3	MRNTLLILSDLGLEYSSKEW-----CRFLMG--V
Tr-ORA3	MRNMLLILSDIGLEYSSKEW-----CQFLMG--V
Ol-ORA3a	MRNILLVMSDFGIQLFLSRER-----CQFLMG--V
Ol-ORA3b	MRNILLIVSDFGIQLFLSRER-----CQFLMG--V
Gm-ORA3	LRNALLVISDIGIALYSSKEC-----CQFLMG--V
Hc-ORA3	LRNTLLIISEFGLQIYTAKGF-----CQLLMG--M
On-ORA3	LRNTLLIISEIGLQIYTTKGF-----CQLLMG--M
Ss-ORA3a	LRNVLLVISDLGLEINTSRDG-----CHVLMG--V
Ss-ORA3b	LRNILLVISDLGLEINTSRDG-----CHVLMG--V
Dr-ORA3a	LRNTVLMVSDLGVEIFLSRDM-----CQFMMG--L
Dr-ORA3b	TRNSLLVISDMGVQVFLNRNW-----CRFMMG--I
Lo-ORA3	VRNIPLLLADVGLQLFTSPGC-----CQFLMF--M
Am-ORA4	FRTIPFISDLGLKVSLDNTW-----CRVFML--L
Fh-ORA4	FRTVPIFVSDLGLDVSLSAGW-----CRLFML--L
Pf-ORA4	FRTVPIFMSDLGLDVSLSPGW-----CRIFML--L
Xm-ORA4	FRTVPIFVSDLGLDMSLSPVW-----CRIFML--L
Hc-ORA4	FRTVPIFVSDLGLDLYLSSGW-----CRVFML--L
On-ORA4	FRTVPIFVSDLGLDLSLSSGW-----CRVFML--L
Ss-ORA4	FRTVPIFVSDLGLDVSLSQGW-----CRLFMF--L
Ol-ORA4	FRTVPIFVSDLGLDVSLSPGW-----CRVFML--L
Tn-ORA4	SRTVPIFVSDLGRDVSLSAGW-----CRVFML--L
Tr-ORA4	FRTVPIFVSDLGSDVSLSPGW-----CQVFML--L
Gm-Or4	FRTVPIFISDLGLEVTLSPGW-----CRVFML--L
Ga-ORA4	FRTVPIFVSDLGLDVSLSLGW-----CRIFML--L
Dr-ORA4	FRTVPIFVSDLGLQVWLTAGW-----CRVFML--L
Lo-ORA4	FRTVPIFVSDLGLEVSLAPGW-----CRLFMF--L
Am-ORA6	IVDIYDMIVLRST-HSISILS-----CGVLKF--M
Dr-ORA6	MVDVYDVLLLCSP-SCIGVCS-----CRALRF--L
Fh-ORA6	IVNIYDVHVLEVFSATAGSWR-----CRLIGF--M
Pf-ORA6	IINVYDVIIILDTVSTTTGAWW-----CRLMKF--M
Xm-ORA6	SINVYHVIIILDTVFTTTGAWW-----CRLMKF--M
Ga-ORA6	ITTVFDVDFLQASSRGVDTWS-----CRSLKF--L
Hc-ORA6	IINIYDIIILQTPSTATGTWS-----CYLLEF--V
On-ORA6	ITNIYDIIILQTSSTATGTWS-----CYLLEF--M
Tn-ORA6	IVNVYDIIILLCTSYATVGTSW-----CRTLKF--L
Tr-ORA6	IVNIYDMIILQTSFATVGTSW-----CRLMKF--L
Gm-ORA6	VVDFYEVIMLIG--HIQNSLL-----CRTMKF--L
Ol-ORA6	ILNVYDAFMLQTS--SSDTWW-----CRFLKF--M
Lo-ORA6	LVSIFDITTRLAL-QSLEEWS-----FKILRF--M
Ss-ORA6	VLPAQVVL--HNGLAFLGQWWAISRLLLVLLVSYTAEGYMSLRPGQAEIKLCVWLYLFGM
Am-ORA5a	MVDLPDTL-ELVKRWPVGRMY-----CSAFNF--F
Am-ORA5b	LVDLPD-MMDFTYNFLMGQMY-----CSVNF--C
Fh-ORA5	LVDAPDTMADFAGRWFLGATF-----CGIFRF--S
Pf-ORA5	LVDIPVTMEDFAGQWLLGLTF-----CGIFRF--S
Xm-ORA5	LVDIPVTMEDFAGRWFLGLSF-----CGIFHF--S
Gm-ORA5	LVDLPDTMADIAGGWFLGDGY-----CGVFRF--C
Ga-ORA5	LVDLPDTVADFAGHWFLGETF-----CAAFRF--C
Tn-ORA5	LVDLPDTMADFAGRWFGLGETY-----CGIFRF--C
Tr-ORA5	LVDLPDTVADFAGRWFLGETY-----CGIFRF--C
Hc-ORA5	LVDLPDTMADFAGRWFLGKTY-----CGVFCF--C
On-ORA5	LVDLPDTMADFAGRWFLGETY-----CGVFCF--C
Ss-ORA5a	LVDLPDTMADFVGHWFLGEAY-----CCVVQF--C
Ss-ORA5b	LVDLPDTMADFAGRWFLGEAY-----CGVFRF--C
Ol-ORA5	VVNLPETMADIADNWFLGETF-----CCVFLF--S
Dr-ORA5	MVDLPDTLAQFLNSWLLSRNY-----CSVLQF--S
Lo-ORA5	LVDLPDTLADIAGRWFLGEAY-----CGIFLF--C

Am-ORA1 YRITRALSVCFTCMLSVFQALTIAPAGGPRL---ARLKARLPQLVAPTFAGLWLLNMAVC
Fh-ORA1 YRVGRALSVCITCMLSVFQAATIAPA-GPRL---SRLKPTLPSLVLPFTFAMLWFLNMAIC
Pf-ORA1 YRIGRALSVCITCMLSVFQAMTIAPA-GPRL---SKLKPVLPSSLVLPPTFAALWLLNMAIC
Xm-ORA1 YRIGRALSVCITCMLSVFQAMTIAPA-GPKL---SKLKPMLPSSLVLPPTFAALWLLNMAIC
Sc-ORA1 -----CITCMLSVFQAVTIAPA-GPRL---SRLKPALPSSLVLPPTFALLWFLNMAVC
Sr-ORA1 -----CITCMLSVFQAVTIDPA-GPRL---SRLKPALPSSLVLPPTFALLWFLNMAVC
Hc-ORA1 YRIGRALSVCITCMLSVFQAVTITPT-GPYL---SRLKPSLPSSLVIPTFAGLWFLNMAIC
On-ORA1 YRIGRALSVCITCMLSVFQAVTITPT-GPYL---SRLKPSLPSSLVLPPTFAGLWFLNMAIC
Ol-ORA1 YRIGRALSVCITCMLSVFQAVTIAPA-GPFL---SRLKLALSSSLVFPTFVGLWLLNMAVC
Ga-ORA1 YRIGRALSVCVTCMLSVFQAVTLAPA-GPRL---SRLKPALPSSLVLPPTSAGLWLLNMAVC
Ss-ORA1 YRIARALSVCITCMLSVFQAVTIAPAGGPCL---SRLKAQLPSLIVPTIAGLWFLNMAVC
Dr-ORA1 YRIARALSVCITCMLSVFQAVTVAPAAGPLL---SGVKARLPQLLAPTFAALWFINMAVC
Gm-ORA1 YRITRALSVC LTCMLSVFQAATLAPD-AP-----RLKAALPALVLPSPFAGLWLLNMAVC
Lo-ORA1 YRIARALSVCITSMLSVFQSI I IAPA-SSRW---VGLKVRVSQLLFPSFAALWLINMAVC
Lo-ORA8a -----LNVAVC
Lo-ORA8b -----
Lo-ORA7 YRTRRAMSISLTFVLSAYQCITIAPA-SSRL---SRLKPWLYRCLLPLNLFFWLLNGGTT
Am-ORA2 YRTFRGLSIWLTFRTLSSYQCLSIAPP-GSHW---ATLRS LFGRYLWLI FLLLWI INTSAS
Fh-ORA2 YRTSRALSIWLT FLLSAYQCLSIAPP-GSSW---ASARVLVAQNLP AVFFFILWVLHTSMS
Pf-ORA2 YRTSRALSIWLT FLLSAYQCLSIAPP-GSKW---ASVRILVAQNLP I VFFLWVLHTSTS
Xm-ORA2 YRTSRALSIWLT FLLSAYQCLSIAPP-GSKW---ASLRTLVAQSLPIV FVFLWVLHSSLS
Gm-ORA2 YRTARSLSIWLTFVLSAYQCLSIAPP-GSRW---AAARALAARYMAAIFLALWLGNTCMS
Ga-ORA2 YRTSRSLSIWLTFVLSAYQCLSIAPP-GSRW---AHLRVLLAQYLG LVFLILWLLNTCMS
Hc-ORA2 YRATRGLSIWLTFLLSTYQCLSIAPP-GSSW---ASVRALLGHYLA FVFLWVLNACMT
On-ORA2 YRTRRALSIWLT FLLSTYQCLSIAPP-GSSW---ASVRALLGHYLA FVFLWVLNTCMT
Ss-ORA2 YRTSRSLSIWLTFVLSAYQCLSIATP-GSRW---ASIRVLVARYLA VIFLTLWVINTSMS
Ol-ORA2 YRTSRGLSIWLTFLLSTYQCLSVSPP-GSYW---ASVRVLLAQNLV FVFLWVLNNTMS
Tn-ORA2 YRTSRSLSIWLTFILSAYQCLCIAPL-GSQL---ATLRMIVAKYLFYV FFFLWLLTTTMS
Tr-ORA2 YRTSRSLSIWLTFILSAYQCLCIAPP-GSQW---TTLRIVFASYLFYV FFFLWLLTTTMS
Dr-ORA2 HRTARSLSIWLTFLLTALQCLSVAPP-GSRR---AAARALLARSLPAIFLALWLINTSMS
Lo-ORA2 YRTSRSLSIWLTFVLSTFQCISIVPP-GSRG---YSIKSHAPRYLGGVFV FLWILNSWLS
Am-ORA3 WVWLRSVNVWSTFFLSAFHFHTLRRT-APPI-TSLSGPRGLPRGILTGFGLIWSSNLLYS
Fh-ORA3 WVWLRSVNVWSTFFLSAFHLHTLKRV-APTI-GNIQGPWSTYRTLLLSLGV IWI LNLLYS
Pf-ORA3 WVWLRSVNVWSTFFLSAFHLHTLKRV-APTI-GHLQGPWSTYRTLLLSLAIMW I LNLLYS
Xm-ORA3 WVWLRSVNVWSTFFLSAFHLHTLKRV-TPTI-GDLQGP RSTYRTLLLSLAI IWI LNFLYS
Ga-ORA3 WVWLRSVNVWSTLFLSAFHLQTLRRV-APTA-VSRNGPRGLPKTLLLSLT LIWLLNLVYS
Tn-ORA3 WVWLRSVNVWSTLFLSAFHFQTLRRV-APVA-GPVQGARGAPKILLINFLIWF INLIYS
Tr-ORA3 WVWLRSVNVWSTLFLSAFHLQTLRRV-APMA-VNVTGSRGAPKILLMNMFLIWF INLLYS
Ol-ORA3a WVWLRSVNVWSTFYLSVFHLQTLRRV-APSV-GNLQASRGVPKTL LLNLLSIWILNLLYS
Ol-ORA3b WVWLRSVNVWSTFYLSVFHLQTLRRV-APSV-GNLQASRGVPKTL LLNLLSIWLLNLLYS
Gm-ORA3 WVWLRSVNVWSTLLLSAFHFHTLRRV-APPL-GNLHGPRGLPKL LLLGLGLIWVLNFLYS
Hc-ORA3 SVWLRSVNAWSTLFLSAFHLQTLKRV-AP---GATNGPRGAPKTLLMCLGLIWIGNLIYS
On-ORA3 SVWLRSVNAWSTLFLSAFHLQTLKRV-AP---GATNGPRGVPKTL LVCLGLIWIGNLIYS
Ss-ORA3a WVWLRSVNVWSTLFLSAFHFQTLRRV-APPP-GTVHGPRRPPKTLLI SLGLIWFLNLIYA
Ss-ORA3b WVWLRSVNVWSTLFLSAFHFQTLRRV-APPS-GTVHGPRRPPKTLLI SLGLIWFLNLIYA
Dr-ORA3a WVWVRSANVWSTFFLSAFHFQTLRRV-APPV-INLHGPRGPPLSLILGFCLIW S LNLIYS
Dr-ORA3b WVWVRSANVWSTFFLSAFHFQTLRRV-APPV-SNVHGHGPPRSLIFGLCLIW S LNLIYS
Lo-ORA3 WVWLRSVNVWMTMCLSAFHFLTLCLRL-GPVVPAGPHGPRASLQRLL LVLALIWS LNLLYS
Am-ORA4 WVWWRAVGCWATLTLSAFHYATLKRK-RVST--CPQALRKDRRLTWGALGLVWG TNLLFS
Fh-ORA4 WVWWRAVGCWVTLTLSFFHCATLR RH-HVSL--GPLTLQRERRRVWVVLALVWG ANLAFS
Pf-ORA4 WVWWRAVGCWVTLTLSIFHCATLR RQ-HVTF--GPLTLQRERRRVWVVLGLVWG ANLAFS
Xm-ORA4 WVWWRAVGCWVTLTLSIFHCTLR RQ-HVTF--GPLTLQRERRRVWVVLGLVWG ANLVFS
Hc-ORA4 WVWWRAVGCWVTLTLSAFQC TTLRRQ-NVAF--GPLTVQRE-RRLWVVLGVVWG ANLAFS
On-ORA4 WVWWRAVGCWVTLTLSVFQCTLR RQ-NVAF--GPITVQRERRRLWVVLGVVWG ANLAFS
Ss-ORA4 WVWWRAVSCWVTLTLSAFHCATLKRQ-HVAM--GPLAQEHERRKVWVALGLVWG LNLA FS
Ol-ORA4 WMWWRAVGCWVTLTLSIFHCTTLKRH-HVSL--GPLVLQKEKRRVW I IGLVWG ANLAFS
Tn-ORA4 WVWWRAVGCWLT TLVLSVFHCTTLKRQ-RLYI--GPNAQRRERRRLWVILGLVWG LNLA FS
Tr-ORA4 WVWWRAVGCWLT LALSIFHCTTLKRQ-RLYM--GPDMQRRERRRMWVILGLVWG LNLA FS
Gm-Or a4 WVWWRAVGCWVT LALSAFHCSTLR RQ-HVAF--GPLAVQKERRRVWGALGLVWG VNLVLS
Ga-ORA4 WVWWRAVGCWVT LALSIFHCTVLR RQ-HVAC--GPLAQERERRHVWIALGLVWG ANLAFS
Dr-ORA4 WVWWRAVGCWVT LALSAFHCATLR RQ-HVSM--GPLGHSRERRRVWVVLAVVWA ANLLFS
Lo-ORA4 WVWWRAVGCWATLGLSLFHWAMLRRH-SFMS--GLQAHRAELRRVCVALALVWALNFAYS
Am-ORA6 TLSGEVASIFFTVLIS IYRYQKLHNA-AMRI--ITPIFMDSMKIGVGLSLLCVLVA VLAS
Dr-ORA6 TVFGEVCSVLFTALIS IYRHQKLHDV-FSHV--NVPVLLDSLRWAVCMCVLCVVALA FG
Fh-ORA6 TVFGEIASILFTVVICIFRYQKL RDI-NHRG--SLPIWLDSITSAGMMSGVCVTLS TLVS
Pf-ORA6 TTFGEIASILFTVVICIFRYQKL RDV-DHRG--SLPICLDSIASAWMLSGVCVTLS TLLS
Xm-ORA6 TTFGEIASILFTVVICIFRYQKL RDV-DHRG--SLPICLDSIASAWTMSGVCVTLS ALLS
Ga-ORA6 SKFGEVASIFFTVLISVFRQQKLSDA-AKRA--NLPIYLDSIGSARMASGVCVLLAT LLS
Hc-ORA6 TVIGEINSIFFTVLICIFRYQKL RDL-NTRV--NFPLFLDNIRS AWTVSGISVMLS VLLS
On-ORA6 TVIGEINSIFFTVLICIFRYQKL RDV-NTRV--NFPLFLDNIRS AWMVSGISVMLS VLLS
Tn-ORA6 TSLGETASILITVLIS IFRYQKL RDA-SRRV----PIYLDSIRS AWTVSGILLMFTV LLA
Tr-ORA6 TMLGENASILVTVLIS IFRYQKL RDA-SRRV--NLPIYLDSIRS VWTVSGILT VFTILLS
Gm-ORA6 NLLGEVSSILFTVLICVFRYQKL RDA-EKRG--NAPIFLDSRKSAWVVSGLCMLLSV MLG
Ol-ORA6 TMFGETASIFFTVIISIFRYQKL-----GV--SLSVHPDRIGVAQLLSGVCVMFS FLLS
Lo-ORA6 ASLGETATIFFTVLISVFRYQKL RHA-EARG--NLPTS WDNTSTAWALSGMSLFLSF CF C
Ss-ORA6 LVFGKIASILFTVLFSIFRYQK-----
Am-ORA5a SDLSETSSIFTTMFITVFWHQKL VGS-LKHG--GAPVQMDNTRLVMALLAGSWTVSVVFS
Am-ORA5b SDLSETSSIFTTLFITVFWHQKL VGS-LKRG--GAPVQMDNIRLVAALLAGSWIVA IAFS
Fh-ORA5 ADLSETSSLF T TLFICAFWHQKL VGS-LKRG--GAPVQLENLRLVGCLLAGSWILSTVFS
Pf-ORA5 ADLSETSSLF T TIIICVFWHQKL VGS-LKRG--GAPVQLDNLRLLGCLLVGSWT LSVVLS
Xm-ORA5 SDLSETSSLF T TLIICIFWHQKL VGS-LKRG--GAPVQLDNLHLLGCLLAGSWT LSAIFS
Gm-ORA5 ADLSETSSIFSTLFISVYWYQKL VGS-LKRG--GGPVQLDSLRLVGGLLAGSWGVAVVFS
Ga-ORA5 ADLSETSSIYSTFFISVFWHQKL VGS-LKRG--GAPVQLDRLCLVGCLLAGSWTVAAVFS
Tn-ORA5 ADLSETSSIFTTLFISVFWHQKL VGS-LRRG--GAPVQMDNLC LVACCLLAGSWTVAAVFS
Tr-ORA5 ADLSETSSIFTTLFISVFWHQKL VGS-LKRG--GSPVQMDSLCLVACCLLAGSWTVAVVFS
Hc-ORA5 AGLSETSSIFT T TFFISVFWHQKL VGS-LKRG--GAPVQMDSLCLVGWLLAGSWTVAVVFS
On-ORA5 AGLSETSSIFT T TFFISVFWHQKL VGS-LKRG--GAPVQMDSLCLVGCLLAGSWTVAVVFS
Ss-ORA5a SDLSETSSVFSTLFISVFWYQKL VGS-LKRG--GAPVQLDSLRLVACCLLVGSWTVAVVFS
Ss-ORA5b SDLSETSSIFSTLFISVFWYQKL VGS-LKRG--GAPVQLDSLRLVAYLLAGSWTVAGVFS
Ol-ORA5 IDFSETSSLFSTFLISAFWHQKL VGS-LKRG--GAPVQLDNLC LVGFLLAGSWTVCAVFS
Dr-ORA5 SDLSETSSIFSTMFITLYWHQKL VGS-VRRG--GAPVQLDNLR LVLWLLLGSWMVALTFS
Lo-ORA5 SDLSETSSVL T TLLISVFWYQKL VGS-LKRG--NAPVKLDSLGLSCGLLAASWGAA LVFS

Am-ORA1 IAAPFFSVAPR----NGTVP-----PFTLNLGFCHVDFR-----DNLSYVINGAA-VSA
Fh-ORA1 VAAPLFSMAPR----NGTVP-----AFTLNLGFCHVDFR-----DNLSYVVGVA-VSG
Pf-ORA1 IAAPFFSMAPR----NGTIP-----AFTLNLGFCHVDFR-----DNMSYVINGVA-VSG
Xm-ORA1 IAAPFFSMAPR----NGTIP-----AFTLNLGFCHVDFR-----DNMSYVINGVA-VSG
Sc-ORA1 IAAPFFSMAPR----NGTVP-----AFTLNLGFCHVDSR-----DHLSYVINGVA-VST
Sr-ORA1 IAAPFFSMAPR----NGTVP-----AFTLNLGFCHVDFR-----DHLSYVINGVA-VST
Hc-ORA1 ISTPLFSMAPR----NGTVS-----AFTLNLGFCLVDFR-----DNLSYVINGVA-ISG
On-ORA1 IAAPLFSMAPR----NGTVP-----AFTLNLGFCHVDFR-----DNLSYVINGVA-VSG
Ol-ORA1 IAAPFFSMAPR----NGTVL-----PFTLNLGFCHVDFR-----DNLSYVINGVA-VSV
Ga-ORA1 VAAPLFSMAPR----NGTAP-----AFTLNLGFCHVDFR-----DNLSYVINGVA-VSV
Ss-ORA1 LAAPLFSIAPR----NGTVP-----AFTLNLGFCHVDFR-----DRLSYKINGVV-VST
Dr-ORA1 IAAPFFSVAPR----NGTVP-----PFTLNLGFCHVDFH-----DNLSYVLNGVA-VSV
Gm-ORA1 IAAPFFSIAPR----NGTVP-----AFTLNLGFCHVDFR-----DLSYVINGVA-VSV
Lo-ORA1 IAAPFFSIAPR----NGTVP-----EFTLNLGFCHVDFR-----DSLSYIINGVA-VSG
Lo-ORA8a QASLLYSSAPT----NSSLS-----EYTLNLEFCIVAFP-----SFEAYMGNGVM-HIV
Lo-ORA8b -----VM-YIV
Lo-ORA7 YTSILYTSQVR----NTTLS-----TNTLNLGYCLVVFP-----SEESYFANGVM-YLT
Am-ORA2 APTLVFAVAARN---DSKLL-----ENSINIQFCFINFP-----SVFAKDANGAL-QVV
Fh-ORA2 VGAVLFSVSSRN---YTAMT-----TSAVNAEFCYVNFR-----SDVLKEAYGAI-QVS
Pf-ORA2 AGAILFSVSSKN---GTAVT-----TSAVNLEFCYVNFP-----SDIIKEVYGAI-QVS
Xm-ORA2 AGAILFSVSSKN---VTAVA-----TSAVNVEFCYVNFP-----SDILKKVYGAI-QVS
Gm-ORA2 SAAVLFSVGAGNGNGSSSLG-----SNGINVQFCVVRFP-----TRLSKDANGAV-QVA
Ga-ORA2 SAGILFSFGTKN---VTNLT-----NFDINVQFCYVNFP-----SKLSIQANGAS-QVG
Hc-ORA2 TAILFSFSTKN---ETSPI-----DNGINVQFCYLNFP-----SKLSRDANGAI-QVG
On-ORA2 TAILFSFSTKN---ETSPI-----DNGINVQFCYVNFP-----SMLSRDANGAV-QVG
Ss-ORA2 SAAIAFSLGSRN---DSVNM-----QHSINVQFCYVRFP-----TMQSKQVNGAV-QVG
Ol-ORA2 SGAILFSLSSKN---DSSPI-----NNAVNLEFCFVSFP-----SDLSKEIFGAV-QVS
Tn-ORA2 TAILFSFSTQN---GTNLV-----NNSINVQFCYVQFP-----SKLSKDANGAA-QVG
Tr-ORA2 SAAVLFSFGTQN---DTNLI-----NHSVNVQFCFVHFP-----SKMSRDANGAA-QVG
Dr-ORA2 VASLLYSIGARN---DSRLL-----QNAINVEFCFLSFP-----SRLARDANGAA-QVA
Lo-ORA2 SAALAFAVSSGD---NSTRT-----QGINIEFCIVNFP-----SSTWKNAVGAV-QVA
Am-ORA3 VPAFIYSTSGGK---NATELMLVSSTTRPLLGLWDFP-----SVYSGLAFATTSMVI
Fh-ORA3 IPAHIFSTSGNE---NTTELMLVSSTTRPLLGCVWNFP-----SNYSGLAYATTSMAI
Pf-ORA3 IPAHIFSTSGNE---NTTELMLVSSTTRPLLGCVWNFP-----SNYSGLAYATTSMAI
Xm-ORA3 IPAHIFSTSGNE---NTTELMLVSSTTRPLLGCVWNFP-----SNYSGLAYATTSMMV
Ga-ORA3 IPAHIFSTSGDV---NSTELMLVSSTTRPLLGCVWNFP-----SSYSGLAYATTSMVI
Tn-ORA3 IPAHIFSTSGNI---NSTELMLVSSTTRPLLGCIWNFP-----SRYSGLAYATTSMVL
Tr-ORA3 IPAHVFASTSGNI---NSTELMLVSSTTRPLLGCIWNFP-----TRFSGLAYATTSMVL
Ol-ORA3a IPAHIFSTNGNA---NSTELMLLISTTRPLLGCVWNFP-----SSYSGLAYATTSMVI
Ol-ORA3b IPAHIFSTNGNA---NSTELMLLISTTRPLLGCVWNFP-----SSHSGLAYATTSMVI
Gm-ORA3 IPAHVFSINGNQ---NSTELMLVSSTTRPLLGCIWNFP-----LK-NGLLYATISMVI
Hc-ORA3 IPAHIFSSNGNK---NTTELMLVSSTTRPLLGCVWNFP-----ST-IGLAYATTSLVI
On-ORA3 IPAHIFSSNGNK---NATELMLVSSTTRPLLGCVWNFP-----ST-SGLAYATTSLVI
Ss-ORA3a VPAHIYSTKGNK---NST-----
Ss-ORA3b VPAHIYSTKGNK---NSTELMLVSSTTRPLLGCVWNFP-----SSYDTLAYTTTSMVI
Dr-ORA3a IPAFIFSKNGNE---NSTELMLVSSTTRPLLGCIWDFP-----SAYSGLAFATSSMIL
Dr-ORA3b IPAFIFSKNGDA---NSTELMLVSSTTRPLLGCIWNFP-----SAYSGLAFATSSMIL
Lo-ORA3 FPGFFFSTQGR---NSTELMLVSSTTRPLLGCVWSFP-----SRRGGLAYATTSLVL
Am-ORA4 IPASVFTSHVHG---NATTEVMVISCTTRPLLGCWVWFP-----TREQGYAFAAASMAL
Fh-ORA4 VPALLYTHVQS---NATVELMVISCTTRPLLGCVWEFP-----SSQQGSAFASASLAL
Pf-ORA4 IPALLFTTHIES---NATMELMVISCTTRPLLGCVWKFP-----SDRQGLAFASTSLAL
Xm-ORA4 IPALLFTTRVES---NATVELMVISCTTRPLLGCAWKFP-----SDQQGSAFASTSLAL
Hc-ORA4 VPALVYSTHVKG---NATVELMVISSTTRPLLGCVWEFP-----SEEQGTVFASTSLAV
On-ORA4 VPALVYSTHVKG---NATVELMVISSTTRPLLGCVWEFP-----SEEQGLVFTSTSLAV
Ss-ORA4 LPALVYTTHVQG---NATVELMVISCTTRPLLGCWWEFP-----SEEQGSAFASTSLAL
Ol-ORA4 IPALVYSTHVYS---NATVDLMVISSTTRPLLGCIWEFP-----TTQQGSAFAFSTLAL
Tn-ORA4 TPALIYSTHVHG---NATVELMVISCTTRPLLGCIWEFP-----TAQQGSAFASASLAL
Tr-ORA4 IPALIYSTHVHG---NATVELMVISCTTRPLLGCIWEFP-----TAQQGSAFASASLAL
Gm-Or4 LPALVYTTHVHG---NATVELMVISCTTRPLLGCIWEFP-----SREQGEAFASTSLVL
Ga-ORA4 IPALVYSTHVHG---NATVELMVISCTTRPLLGCVWEFP-----SNQQGSAFASASLAL
Dr-ORA4 LPALVYTTQVRG---NATVELMVISCTTRPLLGCVWEFP-----TFQQGYAFASSLAL
Lo-ORA4 LPALVYSTHSRG---NTTVELMVISCTTRPLLGCVWEFP-----SEVQGIAFATASLVV
Am-ORA6 VPTYIINLDSWHHMYNSTIT-----DCPADFFQCPRDNCPILNNIYRFLFIF
Dr-ORA6 LPTLLVNTHWSVS--NSSLE-----RCPVDFFQCPSS-SPCLTHIYKYVFLLV
Fh-ORA6 LPVFFTLQESVK---NTTVNSG-----GCPSDLFQCGENYCPTLNRVYKYLMMIL
Pf-ORA6 LPMFAVTFQGSVE--NVTENRG-----GCPTDFFQCGENYCPFNRVYKYLIMLL
Xm-ORA6 LPMFAIAFRGSVE--NVTENRE-----GCPTDFFQCGENYCPILNCVYKYLIMLL
Ga-ORA6 LPVFAIEPKEPAG--NATGNATG--NATGNAIGCPPDFFQCSKSRCPALNGLYKHVFILV
Hc-ORA6 VPMFVIDQESKAE--NVTRNSS-----MCPDFFHCTQNHCPVFNRIFYKYLFI
On-ORA6 VPMFVIDQESKAE--NVTRNSS-----VCPDFFHCTQNHCPVFNSIYKYLFI
Tn-ORA6 SPIFVLNIKEMSQ--NVTINGS-----GCPPDFFQCNKDNCPELNGIYKYLFI
Tr-ORA6 SPIFVLNIKETSQ--NFTNNGS-----GCPPDFFQCNKEDCPELNGIYKYLFI
Gm-ORA6 LPVYFVRIDTHVE---ADNGT-----SCSPDFFQCHEHFCPLNRFYKYLFLVS
Ol-ORA6 FPVVAIKPAALTE--SAANNSSG-----GCPADSFHCGKNYCPAPNRAYKYLFI
Lo-ORA6 LPGYFIESDERVD--NHTRSR-----NFLTDPPFQCPRINCPAINLIYKTLFLLF
Ss-ORA6 -----
Am-ORA5a LPHLFFTSLNIQ---NQSSE-----ECLEYFP-----SQEVKQTYEMVFLML
Am-ORA5b LPHIFLASKNNG---NNTYF-----ECLEDYP-----SLKAKQAYDLMYLVF
Fh-ORA5 IPHFFFVSLEGT---NGSRE-----DCIDVFP-----DALSSQIYEIFFLVL
Pf-ORA5 MPRLFFVSLEVT---NESLE-----HCVDVFP-----NVLSRQTYEVFFLSL
Xm-ORA5 MPRLFFVSQEVK---NESHE-----NCIDVFP-----DVLSRETYEVIFLSL
Gm-ORA5 IPHYFFVTVEGE---NGSSL-----ECNDVFP-----SEEAKQTYEALYLT
Ga-ORA5 IPHVFFVAVEGR---NGSKV-----DCVDVFP-----SAVARQTYEIFYLT
Tn-ORA5 VPHFFFVKVEAT---NESSE-----DCIDVFP-----NKLAKQTYEIIYLT
Tr-ORA5 IPHFFFVKVEGS---NESSE-----DCIDVFP-----NKAQKQTYEIIYLT
Hc-ORA5 VPHYFFFTLEVA---NDSHE-----DCIEIFP-----NPNARQIYEAIYLT
On-ORA5 VPHFFFFTLEGA---NDSHE-----DCIEIFP-----NPNARQTYEAIYLT
Ss-ORA5a VPQLFFVRMESG---NESH-----DCIEIFP-----SQTARQTYEPLYLTF
Ss-ORA5b VPHFFFVQVDSG---NESHK-----DCIEVFP-----SQTARRTYETLYLT
Ol-ORA5 IHFFFLASVEGI---NGSHR-----YCVDAFP-----SALAEQTFDIIFLT
Dr-ORA5 VPHFFIAEHDG---NDTLE-----VCEEKFP-----TPAEKKTFDGLYLIV
Lo-ORA5 VPLLSFVTVGSN---RSASQ-----DCQAHFP-----THASKQTYEATYLT

Am-ORA1 RDFSFVGLMLGSSGYILVLLHKHS--RQVRAIRR-----
Fh-ORA1 RDFAFVALMVGSSGYILLLLHRHS--EQVRGIRR-----
Pf-ORA1 RDFAFVALMLGSSGYILLLLHRHS--EQVKGIRR-----
Xm-ORA1 RDFAFVALMLGSSGYILLLLHRHS--EQVKGIRR-----
Sc-ORA1 RDFAFVALMLGSSGYILLLLHRHS--RQVRGIRR-----
Sr-ORA1 RDFAFVALMLGSSGYILLLLHRHS--RQVRGIRR-----
Hc-ORA1 RDFAFVALMVGSSCYILLLLHRHS--HQMKGIHR-----
On-ORA1 RDFAFVALMVGSSCYILLLLHRHS--HQVKGIRR-----
Ol-ORA1 RDFAFVALMVGSSGYILLLLHRHS--HQVRKIRR-----
Ga-ORA1 RDFAFVALMLGSSGYILLLLHRHS--RRVRGIRR-----
Ss-ORA1 RDFAFVGLMLWSSGYILLLLHRHS--HQVRSIRRS-----
Dr-ORA1 RDFAFVGAMLASSGFILLLLHRHR--RQVRAVRR-----
Gm-ORA1 RDFAFVLLMLLSSGYILLILHRHS--RQVRSMRR-----
Lo-ORA1 RDFIFVGLMVCSSGYILLLLHRHG--KQVRQIRSPDQH-----
Lo-ORA8a RDFVFVGMMASAGGYIVVILYRHR--KQTRGLQGA-----
Lo-ORA8b RDFVFVGMMASAGGYIVVILYRHR--RQTRGLQGA-----
Lo-ORA7 RDLFFVILMVLASFYILLLLYRHQ--RRVKGLQSSNM-----
Am-ORA2 RDVIPMSLMTTASFIIILVFLYRHS--RQVSNLRSGTGTG-----
Fh-ORA2 RDVVPALMTLTSLVILVLLYKHS--QHLKGLRGAGSAG-----
Pf-ORA2 RDVVPALMTLTSLIILVLLYKHS--QHLKGLRGAGHAG-----
Xm-ORA2 RDVVPALMTLTSLIILVLLYKHS--QHLKGLRGAGHAG-----
Gm-ORA2 RDVVPMGLMATASLVILVFLYRHS--RQVKGLRSGGG-----
Ga-ORA2 RDVVPALMTLDSLIIILVFLYKHS--QQAKDLRGSRG-----
Hc-ORA2 RDVVPALMTLASLIILVFLYKHS--QQVKGLRSSGGGG-----
On-ORA2 RDVVPALMTLASLIILVFLYKHS--QQVKGLRSSGGGG-----
Ss-ORA2 RDVVPMGMMTLASLVILVFLYRYS--QQVKGLRSSSG-----
Ol-ORA2 RDVVPALMTLTSVIILVLLYQHN--QHMNDLHRNSNAS-----
Tn-ORA2 RDVVPMTLMTLASLIILAFLYKNS--QQVKGLRSS-----
Tr-ORA2 RDVVPALMTLASLIILAFLYKNS--QQVKGLRSRDG-----
Dr-ORA2 RDVVPMLMAAGSLVLLVYLVRQR--RRVQGLRG-----
Lo-ORA2 RDAVPIFLMVAASLFILLFLYRHS--QQVKGLRSAKR-----
Am-ORA3 HEIIPIVLMSVTNLGSLTLTYAHG--SKLHAT-----
Fh-ORA3 HEIFPIILMAVTNMTSLYTLYTHG--RSRSS-----
Pf-ORA3 HEIFPIILMAVTNMTSLYTLYTHG--RSRSS-----
Xm-ORA3 HEIFPIILMVVTNMSLYILNTYG--RSRGS-----
Ga-ORA3 HETIPIILMAITNLGSLYTLYTHS--RVRST-----
Tn-ORA3 HETVPIVLMALTNLGSLYTLYTHN--GMRSS-----
Tr-ORA3 HETVPIVLMALTNLGSLYTLYTHN--GMQSS-----
Ol-ORA3a HETLPIVLMTVTNLSSLYTLHTYG--RTRKS-----
Ol-ORA3b HEALPILLMTATNLSSLYMLHTYSRTRTRTS-----
Gm-ORA3 HETLPIVLMMAFTNAGSLYSLYAHS--KMRSM-----
Hc-ORA3 HEMIPILMAITNLTSLYTLYTHG--RNP-----
On-ORA3 HEMIPILMAVTNLTSLYTLYTHG--RNP-----
Ss-ORA3a LPIILMAITNLGSLYTLYTHG--RTHNPA-----
Ss-ORA3b HEILPVILMAITNLGSLYTLYTHG--RTRNPA-----
Dr-ORA3a HESIPICLMNITNLGSLCTLYAHG--HKRTVA-----
Dr-ORA3b HESIPICLMSITNMGSELLALYAHG--EARRAA-----
Lo-ORA3 HELLPILLMVATNLGTLHTLARHG--RSQRA-----
Am-ORA4 NEVLPLVLMVGTNLATLHTLAKHI--RAVAAGPEMA-----
Fh-ORA4 NEVLPLVLMVCTNLATLHSLAKHI--RAVTD-----
Pf-ORA4 NEILPLVVMVFTNLATLHSLAKHI--RAVTS-----
Xm-ORA4 NEVLPLVVMVFTNLLILHSLVKHI--RAVTS-----
Hc-ORA4 NEVLPLVLMVCTNVATLHALAKHI--RAVAS-----
On-ORA4 NEVLPLVLMVCTNVATLHALAKHI--RAVAS-----
Ss-ORA4 NEVVPLVLMVGTNLATLHSLAKHI--RAVTSAGEA-----
Ol-ORA4 NEVFPLVLMICTNVSTLHALAKHI--RAVTSSME-----
Tn-ORA4 NEVLPLVLMVCTNLATLHALAKHI--RAVSS-Q-----
Tr-ORA4 NEVLPLVLMVCTNLATLHALAKHI--RAVMSSGQ-----
Gm-Or4 NEVLPLVLMICTNLATLHALAKHI--RAVTA-----
Ga-ORA4 NEVLPLVLMVCTNLATLHALAKHI--RAVAAGAH-----
Dr-ORA4 NEVLPLVLMVGTNLATLQALGKHI--RTVRA-----
Lo-ORA4 NELVPLVLMVGTNLASLCVLRRI--HTVAG-----
Am-ORA6 CYLIPLVIVTGTSSLIIRILMIQQ--KVAELHHNSEPATIAANND-----HHHHHHN
Dr-ORA6 CVVLPLLVVTVTSVLMVRVLLAQQ--RAVRVREA-----
Fh-ORA6 CHLLPLIIVTVTSCLTITVLLRQI--YSVTPANDAR-----
Pf-ORA6 CHLLPLIIVTVTSCLTIVVLLGRT--NTVTPANDII-----
Xm-ORA6 CHLLPLIIVTVTSCLTIVVLLGRT--NTVTPANDII-----
Ga-ORA6 CNLLPLAVVTVTGCLILAVLLGQR--STVTPA-----
Hc-ORA6 CHLLPLIIVTVTSCLILTVLLSQR--KTVTPAVNET-----
On-ORA6 CHLLPLIIVTVTSCLILAVLLSQR--KTVTPAVNET-----
Tn-ORA6 FNLLPLIIVTVTSCLIMVLLSQR--KTVAPVNAS-----
Tr-ORA6 FNLLPLIIVTVTSCLIIAVLLSQR--KTVTPVESGS-----
Gm-ORA6 CNLLPLLAVTVSSSLIVKVLLGQK--RVVAPALGAS-----
Ol-ORA6 SYLLPLIVITVTNCLILAVLLVQR--RTITPEISVH-----
Lo-ORA6 SNLIPLLIITATSGLILKVLLHRR--KTVSDVYD-----
Ss-ORA6 -----
Am-ORA5a ANVVPIVGIVFASIQITVTLLQSQ--KRIKNISSRAGPRGDD-----QRKAASN
Am-ORA5b ANIPIIGIFFASIQITVTLLQNQ--KRINSNTTAVTTGAK-----NTKITPA
Fh-ORA5 ANALPVAGIMVASVQIVTLLQNQ--KRIQSRSSDPAKGAIKEN-----HPERSVS
Pf-ORA5 ANALPIAGIWVASIQIVLALLQHH--KRIQSASSHRVNVKQD-----KSERSVS
Xm-ORA5 ANALPVAGIWVASIQIVLTLLQHR--KRIQSVSSHrvkvkQD-----KSERSVS
Gm-ORA5 ANALPVAGIVYATARIVVTLMQSQ--KRIQGHGGNQAASEE-----GRAAPAA
Ga-ORA5 ANALPLAGLVFASAQIVTLLRNK--QRVQGHSSGASEEGENKSGGG-----RDGGVAG
Tn-ORA5 ANIFPVAGIVFASMQIVVTLQNQ--RRIQSHSSNPTQTTN-----RTEDRSS
Tr-ORA5 ANAVPVAGIVFASVQIVITLLRNH--RRIRSHGPDPTKISN-----EPKDRSS
Hc-ORA5 ANALPMAGIVFASAQIVITLLQNH--QRIRSHNSDQTKEMVKEERKRSESK--RNKASVS
On-ORA5 ANALPMAGIVFASAQIVITLLQNH--QRIRSHNSDQTKEMVKEERKRFESK--RNKASVS
Ss-ORA5a ANALPIAGIAFASIQIVITLLRNQ--TRIQGLTSDHHKGTANSLPNN-----
Ss-ORA5b ANALPIAGIVFSSIQIVITLLRNQ--MRIKGLTSDHHKGTDKALPNKREKMDVSEKYDET
Ol-ORA5 ANVFPLVGIIVASFQIVVTLLQSQ--KRIGGHTSVSPKEMIRED-----KSSQSKK
Dr-ORA5 ANVVPLVGITYASVQIVVTLLIQSQ--KRVKDHSGGSE-----
Lo-ORA5 ANAVPVAFMVFTNLQIVITLLTQR--KRIEALKKEARLQP-----AAERAQP

Am-ORA1	-----
Fh-ORA1	-----
Pf-ORA1	-----
Xm-ORA1	-----
Sc-ORA1	-----
Sr-ORA1	-----
Hc-ORA1	-----
On-ORA1	-----
Ol-ORA1	-----
Ga-ORA1	-----
Ss-ORA1	-----
Dr-ORA1	-----
Gm-ORA1	-----
Lo-ORA1	-----
Lo-ORA8a	-----
Lo-ORA8b	-----
Lo-ORA7	-----
Am-ORA2	-----
Fh-ORA2	-----
Pf-ORA2	-----
Xm-ORA2	-----
Gm-ORA2	-----
Ga-ORA2	-----
Hc-ORA2	-----
On-ORA2	-----
Ss-ORA2	-----
Ol-ORA2	-----
Tn-ORA2	-----
Tr-ORA2	-----
Dr-ORA2	-----
Lo-ORA2	-----
Am-ORA3	-----
Fh-ORA3	-----
Pf-ORA3	-----
Xm-ORA3	-----
Ga-ORA3	-----
Tn-ORA3	-----
Tr-ORA3	-----
Ol-ORA3a	-----
Ol-ORA3b	-----
Gm-ORA3	-----
Hc-ORA3	-----
On-ORA3	-----
Ss-ORA3a	-----
Ss-ORA3b	-----
Dr-ORA3a	-----
Dr-ORA3b	-----
Lo-ORA3	-----
Am-ORA4	-----
Fh-ORA4	-----
Pf-ORA4	-----
Xm-ORA4	-----
Hc-ORA4	-----
On-ORA4	-----
Ss-ORA4	-----
Ol-ORA4	-----
Tn-ORA4	-----
Tr-ORA4	-----
Gm-Ora4	-----
Ga-ORA4	-----
Dr-ORA4	-----
Lo-ORA4	-----
Am-ORA6	HHHHHDN-----
Dr-ORA6	-----
Fh-ORA6	-----
Pf-ORA6	-----
Xm-ORA6	-----
Ga-ORA6	-----
Hc-ORA6	-----
On-ORA6	-----
Tn-ORA6	-----
Tr-ORA6	-----
Gm-ORA6	-----
Ol-ORA6	-----
Lo-ORA6	-----
Ss-ORA6	-----
Am-ORA5a	ELSSKDYISNATSANAPN---TIQK-----
Am-ORA5b	EPS-----VHSNQSSQ
Fh-ORA5	SVSVPDHCKDLKGPSSPA-----HSGK
Pf-ORA5	SVSVQDSHKDLKESSSPA-----ERVSSCP-----NGECLGKSPQSSP
Xm-ORA5	SVSVQDSHKDLKESSSPT-----EHVSSCP-----NGKCLGKSPRSSP
Gm-ORA5	AAS-----IKAAGGAE
Ga-ORA5	TASGPGPTEDPKDPSSLT-----DIYTGVPASARP---TGGSPGHA---GT
Tn-ORA5	CTSG-----KDSTLTS-----PVYTGVP----PVSADGGALAQSSGEPQ
Tr-ORA5	D-----PGPTPPS-----QVYTGVP---P---SGGAVAQSSREPQ
Hc-ORA5	IISGPTTSKDLRDSTSTN-----HIYTGVPAPSSP--NRQPSGHSLHNAP
On-ORA5	IISGPTSSKDLRDSTSTN-----HIYTGVPAPSSP--NRQPSGHSLRNAP
Ss-ORA5a	-----GPSVVHSSISSP
Ss-ORA5b	GIKTSDKEADLPIVASPDFPQSCRNQRISDIRPNLPGVSCSVLPC--AGPSVVHSSISSP
Ol-ORA5	QVMGPLKGLKVVRTYKSE-----PVTSSVT-----LPQTSSQNK
Dr-ORA5	-----
Lo-ORA5	TSTGPDSPREFSSVSTPA-----GNQNPSSQ

Am-ORA1 -----SQGGSMEMRAAKTVVMLVVLYAVVFFGIDN
Fh-ORA1 -----SHGSGAETRAAKTVVTLVVLYVVVFFGIDN
Pf-ORA1 -----SHGSRAETRAAKTVVILVVLYVVVFFGIDN
Xm-ORA1 -----SHGSRSETRAAKIVVTLVVLYVVVFFGIDN
Sc-ORA1 -----SQGGGAETRAAKTVITLVVLYVVVFFGIDN
Sr-ORA1 -----SQGGGAETRAAKTVITLVVLYVVVFFGIDN
Hc-ORA1 -----SQGGGAETRAAKAVLTLVVLYVVVFFGIEN
On-ORA1 -----SQGGGAETRAAKTVLTLVVLYVVVFFGIDN
Ol-ORA1 -----SHSSGAETRAAKTVLILVILYVVVFFGIDN
Ga-ORA1 -----SQGGGAETRAAKTVITLVVLYAVXFGIDN
Ss-ORA1 -----SQGGGAETRAAKTVITLVVLYAVVFFGIDN
Dr-ORA1 -----SQGSTMETRAARTVLMVLILYSVFFGIDN
Gm-ORA1 -----GAAQGVETRAAKTVVTLVVLYAVVFFGIDN
Lo-ORA1 -----SSRNAETRAAKTVVTLVTLYVVVFFGIDN
Lo-ORA8a -----ARMQRKTVEASKAVLTLIAMYVILFGLDN
Lo-ORA8b -----DRMQRKTVEASKAVLTLIAMYVILFSLDN
Lo-ORA7 -----SQGSRAETRAAKTVVTLVTLYVLFVFFGIDN
Am-ORA2 -----GGGSAEERRAAISVVVLVTFYVLMYGVDN
Fh-ORA2 -----AGSCGAEQRAAKVVVVVLVTYVVLYGVVDN
Pf-ORA2 -----SGTCGSKQRAAKVVVVVLVTIYVVLYGVVDN
Xm-ORA2 -----SGTGGSKQRAAKVVVVVLVTIYVVLYGVVDN
Gm-ORA2 -----GGRDGAERRAAKAVVALVTLYVGLYGVVDN
Ga-ORA2 -----GGAERRAAKVVVALVTLYYVVLYGVVDN
Hc-ORA2 -----AGNSGAEQRAAKAVVALVTLYVVFYGADN
On-ORA2 -----AGNGGAEQRAAKAVVALVTLYVVFYGVVDN
Ss-ORA2 -----ASGGAERRAAKAVVVVLVTLYVVLYGVVDN
Ol-ORA2 -----GGRCGAKRRAAKVVVVVLVTLYLGLYGVDC
Tn-ORA2 -----SSDRAEKRAAKAVVTLVSLYVLLYGVVDN
Tr-ORA2 -----GSGRAERRAAKAVVTLVTLYVLLYGVVDN
Dr-ORA2 -----TAGGAAERRAAVTVVTLVSLYLLVFGLDN
Lo-ORA2 -----TQKESAESRAAKTVVTLVTLYVLFYGIDN
Am-ORA3 -----NKSQQDPT--MNRVPAERRAAKVILALILLFIVS-----
Fh-ORA3 -----VQDAPV--IKRVPAERRAAKVILALVMLFIVS-----
Pf-ORA3 -----VQDAPV--LKRVP AERRAAKVILALVLLFIVS-----
Xm-ORA3 -----VQDVPV--LKRVP A EKRAAKVILALVMLFIVS-----
Ga-ORA3 -----DAPV--IKRVPAERRAAKVILTILIMLFIVS-----
Tn-ORA3 -----VQEVPI--KKRVPAERRAAKVILALIMLFII S-----
Tr-ORA3 -----VQDAPV--IKRVPAERRAAKVILALIMLFIAS-----
Ol-ORA3a -----VQDAPV--VKRVPAEKRAAKVILILVLLFTVS-----
Ol-ORA3b -----IQHAPV--IRGVPAERRAARVILILVLLFVV S-----
Gm-ORA3 -----VNDVHV--IKKVPAERRAAKVILALIMLFIAS-----
Hc-ORA3 -----QKDAPV--LKRVP A EKRAAKVILTILLLFIFS-----
On-ORA3 -----RKDATV--LKRVP A EKRAAKVILTILILFIFS-----
Ss-ORA3a -----HMTQDAPV--IKRIP AERRAAKVILALIVLFIGS-----
Ss-ORA3b -----HMTQDAPV--IKRIP AERRAAKVILALTILFIVS-----
Dr-ORA3a -----SQGEDAPV--VSRIPAERRAAKVILALNILFISS-----
Dr-ORA3b -----KKSSDAPV--VSRIPAERRAAKVILALNILFIFS-----
Lo-ORA3 -----GETTL--TRRIP AERRAAKVVLVIMLFII S-----
Am-ORA4 -----SGHSNSEKKAGHVIMALVTLFVV C-----
Fh-ORA4 -----SGSHGEL--DKHVSTERKAAHVIMSLVSLFVVC-----
Pf-ORA4 -----ESGSHGEL--DKHVSTERKAAHVIMCLVSLFVVC-----
Xm-ORA4 -----ESGSHGEL--DKQVSTERKAAHVIVSLVSLFVIC-----
Hc-ORA4 -----GGTHTEL--DKHLSSERKAAQVIMSLVLLFVVC-----
On-ORA4 -----GGIHTEL--DKHLSSERKAA RVII SLVLLFVVC-----
Ss-ORA4 -----GGGTHGEL--DRHVASERKASHVIMLLVMLFVVC-----
Ol-ORA4 -----SGGSHGEV--NKLVSTERKAAHVIMLLVALFVVC-----
Tn-ORA4 -----SGGSQGEL--DKHLSTERKAAHLIMLLVSLFVTC-----
Tr-ORA4 -----PGGSHVEL--DKHLSTERKAAQVIMLLVSLFVVC-----
Gm-Or a4 -----AGGDSGDM--DRHLASERKAGHVIMSLVSLFVVC-----
Ga-ORA4 -----PGETQKEL--DKHVSTERKAAHVIVSLVSLFVVC-----
Dr-ORA4 -----GGSTGAEL--DRHVSSERKAGHVIMALVALFVGC-----
Lo-ORA4 -----ANMEL--QGHMASERRASHVILVLVTLFVTC-----
Am-ORA6 -----HHHHHDHHH--HDHTNVFHRSTIGILAAMMIFQVY-----
Dr-ORA6 -----E EPHP--HHHHSSLLRSTLAILAAMLLFLLD-----
Fh-ORA6 -----CPDHP--SGKSHGLQRTACTQVGRCEHGGVA-----
Pf-ORA6 -----SPNHH--HGKSHSLFRSTVAVVAAMGLFQVD-----
Xm-ORA6 -----SPDHH--PGKSHGFYRSTVAVVAAMGLFQVD-----
Ga-ORA6 -----SVGS--RSGGSTLRRSSVAVLAAMGLFQVE-----
Hc-ORA6 -----GSSQFSR--KSKDTKI QWSTIAVLGAMGLFQVD-----
On-ORA6 -----GSSQFSR--KSKDTKI QWSTIAVLGAMGLFQVD-----
Tn-ORA6 -----SQT AQ--RSKCQKFQRSTIAVLTA MGLFQVD-----
Tr-ORA6 -----SQISR--KSKGLKFQRSTIAVLTA MGLFQVD-----
Gm-ORA6 -----GPPGK--KSKGPRLQRSTVGILTAMGVFQID-----
Ol-ORA6 -----QSNHSHTNGRD LRFQHSMMAVVAAMGLFLVN-----
Lo-ORA6 -----SSH H--HHQNL YFSKSTKT VLAAMC IFQLD-----
Ss-ORA6 -----
Am-ORA5a -----VQKSQDRSN---SSSGSSQVRAAKSVVAVATVFVIC-----
Am-ORA5b -----EAVSYSNAVVPNPGQARS--SSSSGSLLRAAKSVVTVATIFLIC-----
Fh-ORA5 TGHK--ADSGVEAQANSS--RPSQMPSKQ--STSAHSQVRAAKSVVAVATVV LIC-----
Pf-ORA5 LANK--TDSRAEAQPNHS--KSNQIPSKQ--SNNTSSQVRAAKSVVAVATVV LLC-----
Xm-ORA5 LANK--TDSRAEAQPNHSVCQSSQIPSKQ--SNNASSQVRAAKSVVAVATVV LLC-----
Gm-ORA5 GGGV-----AGGGEV--RGAKPAPKP--SPGSSNQVRAAKSVVAVASIFVVC-----
Ga-ORA5 LVGD--TYSGGGAPEGPG--RPSQTRA---KTSSGTQVRAAKSVVAVAAVFLVC-----
Tn-ORA5 PGGT-----ARSHQECP--RPGQAPTKP--TLASGSQVRAAKSVVAVASVFLVC-----
Tr-ORA5 PGGT-----DRTPEGGP--RPSQAPAKP--TMASSSQVRAAKSVVGVASVFLVC-----
Hc-ORA5 -----QNCSVGAQPNLS--RPSQIPSKP--HPNSSTQVRAAKSVVAVASVVLVC-----
On-ORA5 -----QNCSVGAQPNLS--RPSQIPSKP--HPNSSTQVRAAKSVVAVASVVLVC-----
Ss-ORA5a LYQVDIGDNIVRAPADLK--RSSQPPAKP--SPGSGTQVRAAKSVVAVATVFVVC-----
Ss-ORA5b LYQVEVGDCRVRASPD LQ--RTSQPPAKL--SPGSGTQVRAAKSVVAVATVFVVC-----
Ol-ORA5 TTGS--NCSLGAPANHS-----KPSKA--NPNSSTQVRAAKSVVAVGSVVLVC-----
Dr-ORA5 -----QKTEVRSSG--NPSSGTHVRAAKSVVAVASIFIFC-----
Lo-ORA5 ALADPAGKGRLDALAAAAVAPPRSRNAP--RQHPGAQVRAAMSVVAVASVFLVC-----

Am-ORA1 VIWIYMLTVAQV-----PAVVADMRVFFSSCYATLSPFLMISSNKKLKERM---VC-
Fh-ORA1 VIWIYMLTVSKV-----SPVVADMRVFFSSCYASLSPYFIISSNKKVKRKI---VC-
Pf-ORA1 VIWIYMLTVSKV-----SPVVADMRVFFSSCYASLSPFFIISSNKKVKRKI---VC-
Xm-ORA1 VIWIYMLTVSKV-----SPVVADMRVFFSSCYASLSPYFIISSNKKVKRKI---VC-
Sc-ORA1 VIWIYMLTVPQV-----P-----
Sr-ORA1 VIWIYMLTVPQV-----
Hc-ORA1 VIWIYMLTVEKV-----SPVVADMRVFFSSCYASLSPYFIISSNKKVKAKI---VC-
On-ORA1 VIWIYMLTVAKV-----SPVVADMRVFFSSCYASLSPYFIISSNKKVKAKI---VC-
Ol-ORA1 VIWIYMLTVSNV-----SPVVADMRVFFSSCYASLSPYFIISSNKKVKRKI---VC-
Ga-ORA1 AIWIYMLTVAKV-----SPVVADMRVFFSSCYASLSPYFIISSNKKVKAKI---LC-
Ss-ORA1 IIWVYMLTVDKV-----SPVVNDMRVFFSCCYACLSPFFIISSNKKVKSKL---VC-
Dr-ORA1 VIWIYMLTVAQV-----PPVVAHMRVFFSSCYASLSPFLIISSNRKLKARM---VC-
Gm-ORA1 VIWIYMLTVAKV-----SPVVADMRVFFSSSYAFLSPYFIISSNKRKIKGKL---VC-
Lo-ORA1 IWIYMLTVAQV-----PPVIADMRVFFSSCYASLSPFLIMITSNKKIKNKL---SC-
Lo-ORA8a VVWIYTLCVSRV-----HPIASDTRVFFASCYSALSPIFIITTNKKIVASL---SC-
Lo-ORA8b VMWIYPLCVSHV-----HPIVSDIRVFFASCYSALSPVFIITTNKKIAASL---SC-
Lo-ORA7 LIWAYTLTTEKV-----PLLMNDVRVFFSSLYASVCPVVVIVSNRKVNRRRL---SC-
Am-ORA2 GLWVYTLTVKQT-----LSSALISDLRIFFSMLFAAISPIIIITTNMKVKKQL---L--
Fh-ORA2 GFWVYTLTVRNT-----LSSSLISDLRVFFASLYAALSPLVIIASN RKVNGRL---RC-
Pf-ORA2 GLWVYTLTVRHT-----MSSSLISDLRVFFASLYAALSPLVIIASN RKVNSRL---RC-
Xm-ORA2 CLWVYTLTLRHT-----MSSSLISDLRVFFASLYAALSPLVIIASN RKVNSRL---RC-
Gm-ORA2 GLWVHTLTVRRT-----MGSSLVSDLRIFFSLYAALSPAVIIATNRKVQRRL---RC-
Ga-ORA2 GLWVYTLTSRKA-----MESSLISDLRVFFASLYAALSPAVVIASN RKVNSRL---RC-
Hc-ORA2 GLWVYTLTVKKT-----MSSSLISDLRLFFGSLYAALSPLVIIASN RKVNSRL---GC-
On-ORA2 VLWVYTLTVKKT-----MSSSLISDLRIFFGSLYAALSPLVIIASN RKVNSRL---GC-
Ss-ORA2 GLWVYTLTVRKT-----MSSSLISDLRIFFSLYAALSPLVIIATNRKVNSRL---RC-
Ol-ORA2 GLWVYTLTVKKT-----MSSSLISDLRVFFASMYAALSPLVIIASN RKVNSRL---MC-
Tn-ORA2 GLWVYTLTVREA-----MASSLISEMRIFFSSMYAALSPIVIIASN RKVNNIL---RC-
Tr-ORA2 GLWVYTLTVREA-----MRSSLISDLRVFFSSLYAALSPIVIIISNRKVNSIL---RC-
Dr-ORA2 GLWVYTLTVSHT-----LSSALITDLRLFFTSLYTAVSPLLILVSNTRL-----RC-
Lo-ORA2 GLWVYTLTVTQT-----LSTSLISDLRIFFASLYAAVSPLVIIASNKKVKSQ L---GC-
Am-ORA3 --WGASVISVNYFNYNRGSAESTYLLVLARFFNSLFIALSPLILAVGHRRLRQFF---KS-
Fh-ORA3 --WGTSIISVNYFNYNRGSSAEYLLVIARFANIIFIAMSPVVLAFGHRRLRSCM---KS-
Pf-ORA3 --WGTSIISVNYFNYNRGSSAEFLLVIARFANIIFITMSPVVLAI GHRRLRSCM---KS-
Xm-ORA3 --WGTSIISIN YFNYNRGSSAEFLLVVARFGNSIFITMSPVVLAI GHRRLRSCM---KS-
Ga-ORA3 --WGTSIISVNYFNYNRGSSAEYLLIIARFANIIFIAMSPIVLTFGHRRLRSFV---KS-
Tn-ORA3 --WGTSVISVNYFNYNQGSSAEFLLVIARFANIIFIALSPVVLAVGHRGLRSFF---KS-
Tr-ORA3 --WGTSIISVNYFNYNQGSSAEFLLVIARFANIIFIAMSPAVLAVGHRGLRTFF---KS-
Ol-ORA3a --WGTSVISVNYFNYNRGTSSEFLLVIARFAQILFIALSPAVLAVGHRGLRSCI---KS-
Ol-ORA3b --WGTSVISVNYFNYNRGTSSEFLLVIARFAQILFIALSPAVLAVGHRGLRSCI---KS-
Gm-ORA3 --WGTSIISVNYFNYNRGQSAEFLLVIARFANIFFIAMSPIILSIGHRRLRSFF---TS-
Hc-ORA3 --WGTSVISVNYFNYNRGSSADYLMVIARFANIIFIALSPVILAVGHRQLRSCI---KS-
On-ORA3 --WGTSVISVNYFNYNRGSSADYLLVIARFANIIFIALSPVVLAVGHRQLRSCI---RS-
Ss-ORA3a --WGTSIISIN YFNYNRGLSAGFLLVIARFANTIFIAISPIVLALGHRRRLRAVI---KY-
Ss-ORA3b --WGTSIISIN YLNYKGSATFLPV IARFANSIFIAISPIVLALGHRRRLRAVI---KS-
Dr-ORA3a --WGTNVISVNYFNYNRGQSTEFLLIIARFVNMSFIAFSPIILAVGHRKLRAFI---KS-
Dr-ORA3b --WGTSVISVNYFNYNRGSSTDWLLIAARIGNITFIALSPIVLAVGHRRLRAFL---AS-
Lo-ORA3 --WGASVLSVNYYNYNRGPSTEFLLVMARFTNSLFIAFSPLVLLAGHSRLKAIF---RV-
Am-ORA4 --WVLQVAAVTYTYNYERGKHTDSL LTVSQFSSSLFVGFSPLVVALGHGKMRKKI---MG-
Fh-ORA4 --WVLQVAAVTYTYNHDRGHHAEGLLTVAHFSASLFVGFSPLVVALGHGKLRRKI---KS-
Pf-ORA4 --WVLQVAAVTYTYNH DGGQHAEGLLTVAHFSASLFVGFSPLVVALGHGKLRRKI---RS-
Xm-ORA4 --WVLQVAAVTYTYNYD GGRHAEGLLTVAHFSASLFVGFSPLVVALGHGKLRRKI---RS-
Hc-ORA4 --WVLQVAAVTYTYNHNRGHHAEGLLT VSHFSSSLFVGFSPLVVALGHGKLRRKI---MS-
On-ORA4 --WVLQVAAVTYTYNHNRGHHVEGLLT VSHFSSSLFVGFSPLVVALGHGKLRRKI---IS-
Ss-ORA4 --WVLQVAAVTYTYNHNRGNHAEELLTVAHFSASVFVGFSPLVVALGHGKLRRRI---MR-
Ol-ORA4 --WVLQVAAVTYTYNHNRGLHAEGLLTVAHFSASTFVGFSPLVVALGHGKLRRKI---MG-
Tn-ORA4 --WVLQVAAVTYTYNHDRGHHAEGLLTVAHFSASLFVGFSPLVVALGHGSKLRRRI---SK-
Tr-ORA4 --WVLQVAAVTYTYNH DGGGHHAEGLLTVAHFSASLFVGFSPLVVALGHGSKLRRRI---SS-
Gm-Or a4 --WVLQVAAVTYTYNH DGGGHHAEGLLTVAHF AASLFVGFSPLVVALGHGKLRRKI---VG-
Ga-ORA4 --WALQVAAVTYTYNH DGGDHAEGLLTVAHFSASLFVGFSPLVVALGHGKLRRRI---MN-
Dr-ORA4 --WVLQVAAVTYTYNHNRGAHAEGLLTVAHFSASLFVGFSPLVVALGHGKLRRRI---SG-
Lo-ORA4 --WGLQVTAVTHYNYN RGRQAETLLTVSHFAASVFVGFSPLVVALGHGSKLRGRL---RR-
Am-ORA6 --CILYLARHLAFNL---YDFPAWSELEFFIATFYTALIPYVYGMGHNFFSLKHFR-RQ-
Dr-ORA6 --WSVYLLLHLAFDP---YSFPLWAEVEFFITTIYTALSPYVYGIGNDLFSIKRLY---
Fh-ORA6 --LGLHL-----P---VCVYVRGNL PRLVSAETPRNSWSFAADVIATACPGT-RR-
Pf-ORA6 --WTLYLILQWTFSP---SDCPWIEIEFFISTSYMSISPYVYGIGGHLFSL ENCK-HL-
Xm-ORA6 --WTLYLILQWTFSP---SDCPIWIEIEFFISASYMSISPYVYGIGGHLFSL ENCK-HL-
Ga-ORA6 --WTLYLILQLTAVY---VDFAFRAEAELLISFSYTCISPYVYGIGNDLFSLKNFK-RN-
Hc-ORA6 --WTTYLIFQLAFNP---YEFPFWSEAQFFITISYTSISPYMYMIGHNMIPPHSCK-KG-
On-ORA6 --WTIYLIFQLAFNP---YEF LFWSEVQFFITISYTSISPYMYMIGHNMIPLHSCK-KG-
Tn-ORA6 --WTLNLIFQLTSSP---GAFTSGAEIKFFISSSYTAISPYVYGIGNNLFSLKKFR-KT-
Tr-ORA6 --WTVYLIFQLTISP---GDSSSWAEIKFFISTSYTSISPYVYGIGNNLFSLKKLR-KN-
Gm-ORA6 --WTMYLVFHLAFSP---VNVPLWG DIEFFITTSYTTLSPYVYGIGYDLFSLRYFI-KR-
Ol-ORA6 --WTFYLLFLFLLKP---NNLP SWREIEFFTLTSYSCFSPYVYGIGHNLFSL ENFK-II-
Lo-ORA6 --WIMYLVLHLAFDS---SKMDNWSEIEFFIVTTYTTISP YVYGIGTNIFSCRQIV-KVL

Am-ORA5a --WLTHLLSITSTI---HDSIVIHEMTSYIGALYTCIIPYIYLYGVKKLTCLTC---SSI
Am-ORA5b --WVHVILRLISTI---QESSLIMELASYIGAAYTCIIPYIYLHG VKKFSC TC---RG-
Fh-ORA5 --WVTHLLLRISNNI---QTSSLM MELASYIGASYTCIIPYIFLHGLKKLSCCR---KS-
Pf-ORA5 --WMTHLILRISNSI---QDSSLM MELASYIGAAYTCIIPYIFLHG VKKLS CSC---K--
Xm-ORA5 --WLTHLILRISNSM---QDSPLM MELASYIGAAYTCIIPYIFLHG VKKLSRLC---K--
Gm-ORA5 --WVTHLLLRIS SNI---QTSPIVVEVAS YIAASYTCIIPYIFLYGVKKLS CCCCAGAKQ-
Ga-ORA5 --WLTHLLLRISNNI---HTSSMLVEVAS YIAASYTCIIPYIFLYGVKKLG CPC---RR-
Tn-ORA5 --WLTHLLLRISNNV---HTSSVVVEVAS YIAASYTCIIPYIFLHG VKKLYCSC---KR-
Tr-ORA5 --WLTHLLLRITNSV---HTSSLVVEVAS YIAASYTCIIPYIFLHG VKKLHCSC---KR-
Hc-ORA5 --WLTHLL LHITNNI---HTSSIVVEVSS YIAASYTCIIPYIFLHG VKKLTCS S---KR-
On-ORA5 --WLTHLL LHITNNI---HTSSIVVEVSS YIAASYTCIIPYIFLHG VKKLTCS S---KR-
Ss-ORA5a --WVTHLLLMASNI---HTSSLVLELAS YIGSSYTCIIPYIFLYGVKKLS CSC---RG-
Ss-ORA5b --WVTHLLLRIS SNI---HTSSVVVEVAS YIASSYTCIIPYIFLYGVKKLS CSC---RR-
Ol-ORA5 --WLTHLL LHITNTV---HSSQSTLEVAGYITAS YSCIIPYILLHG VKKLTCSH---KR-
Dr-ORA5 --WFIHLVLRISYSGF---RNSILVVKLTNFIGATYTCFVPYVYLHG VKKLNCSCCW---
Lo-ORA5 --WVTHLLLR IASNV---NESSAIVEIAS YIAASYTCIIPFI FLHG VKKLS CRC---WK-

Am-ORA1	-----AAGG-EQKQ-----DAAEDTDK
Fh-ORA1	-----AAEH-DQ-----PLVDTQE
Pf-ORA1	-----AAEH-DQ-----PLVDTQE
Xm-ORA1	-----VAEH-DQ-----PLVDTQE
Sc-ORA1	-----
Sr-ORA1	-----
Hc-ORA1	-----TAEH-EQ-----PSADTQD
On-ORA1	-----AAEH-EQ-----PSADTQD
Ol-ORA1	-----AAEQ-DQ-----PSVETQE
Ga-ORA1	-----AAEQ-DQ-----PSVDNQE
Ss-ORA1	-----VAADQEQ-----PSVNTQD
Dr-ORA1	-----ATSEQER-----QAEDGKN
Gm-ORA1	-----AVEQ-QQ-----SPVETQT
Lo-ORA1	-----AAANPEQ-----MSLNTED
Lo-ORA8a	-----CKGK-DQKH-----LIAESTVS
Lo-ORA8b	-----CKGK-DQKH-----LIAESTVS
Lo-ORA7	-----IKLA-----
Am-ORA2	-----
Fh-ORA2	-----VAQE-RP-----LLGKTARL
Pf-ORA2	-----VAQE-KP-----LLGKTAHL
Xm-ORA2	-----VAQE-KP-----LLGKTAHL
Gm-ORA2	-----GRGE-KH-----RGESATEA
Ga-ORA2	-----DVKR-KP-----VEEKDTCL
Hc-ORA2	-----VAHE-KS-----AVEKIKNL
On-ORA2	-----VAHE-KS-----AVEKTKNL
Ss-ORA2	-----VVQE-RP-----VQDKATTL
Ol-ORA2	-----ISQK-LA-----
Tn-ORA2	-----AGQE-KH-----VQEKTT--
Tr-ORA2	-----AEQQ-KH-----VQ-----
Dr-ORA2	-----GKQP-ETMH-----
Lo-ORA2	-----MKTE-KG-----PVSVDTVL
Am-ORA3	-----IISH-----
Fh-ORA3	-----SVSD-----
Pf-ORA3	-----SVSD-----
Xm-ORA3	-----SVSD-----
Ga-ORA3	-----TLSH-----
Tn-ORA3	-----LLAH-----
Tr-ORA3	-----LLSH-----
Ol-ORA3a	-----SLTY-----
Ol-ORA3b	-----SLTY-----
Gm-ORA3	-----LV-----
Hc-ORA3	-----TLVH-----
On-ORA3	-----TLVR-----
Ss-ORA3a	-----FLTH-----
Ss-ORA3b	-----FLTH-----
Dr-ORA3a	-----VLSHMI-----
Dr-ORA3b	-----ILTHSIALCR-----HLWTYKLQK--
Lo-ORA3	-----IADHVHSFCF-----SQRCLKKSC--
Am-ORA4	-----MLQRWLRKALCR-----DAEEHKRAPEISSTI-NSTITQKQTH-
Fh-ORA4	-----MILMWTDGPRGP-----ESRSVSASPTTKGKQ-TCFEAQKEIQV
Pf-ORA4	-----MILVWTVNPLSQ-----EAESGRKSPKTSKGKQ-ISFVAQKEVKV
Xm-ORA4	-----LILMWTNVPHSQ-----ETESGKKS�KTSKGK-PSFVAKKEVKV
Hc-ORA4	-----MMLG-----
On-ORA4	-----MMLG-----
Ss-ORA4	-----MIAGCADRVKCQQEKIIDESKAPDKRERTA-KQ-TVFTIQKEREV
Ol-ORA4	-----MILVWTKAFHCS-----SKDTGRKRPSPKKKKLKVFDVQEEMRV
Tn-ORA4	-----VMSWCRRLKGS-----S-----NTKLMQIVFFVPQKQ---
Tr-ORA4	-----MMLGWQCQCFKGR-----SEDDP---PNTRAAKIISFVQHKQ---
Gm-Or4	-----KLVGCSNVVRCRGHEGEDDGGAAGAAQQKEKGK-TVFVVQKEAAS
Ga-ORA4	-----MILMWSEVLKCRKENSEERIKSPKAKGRRG-KR-SVFIVQEERMV
Dr-ORA4	-----ILQSCMHRLKQTQDK-----PAEITEKDGRТ
Lo-ORA4	-----MLRLHCGRREGPGGEDVGDRERDREAATKTPTT-TRTCRDKS---
Am-ORA6	-----
Dr-ORA6	-C-----
Fh-ORA6	-----RDGAAR-----
Pf-ORA6	-----LKR-----
Xm-ORA6	-----LKR-----
Ga-ORA6	-----
Hc-ORA6	-----
On-ORA6	---SF-----KGTVSDFVEVI-----
Tn-ORA6	-----
Tr-ORA6	-----
Gm-ORA6	-----
Ol-ORA6	-----RNKF-----
Lo-ORA6	SCLSFSACGLYRQHSMCAKWNQ-----
Ss-ORA6	-----
Am-ORA5a	-----D-----
Am-ORA5b	-----
Fh-ORA5	-----
Pf-ORA5	-----
Xm-ORA5	-----
Gm-ORA5	-----
Ga-ORA5	-----
Tn-ORA5	-----
Tr-ORA5	-----
Hc-ORA5	-----
On-ORA5	-----
Ss-ORA5a	-----
Ss-ORA5b	-----
Ol-ORA5	-----
Dr-ORA5	-----
Lo-ORA5	-----

Am-ORA1	TNIK-----
Fh-ORA1	SNEK-----
Pf-ORA1	SNEK-----
Xm-ORA1	SNEK-----
Sc-ORA1	-----
Sr-ORA1	-----
Hc-ORA1	SNDK-----
On-ORA1	SNDK-----
Ol-ORA1	SNDK-----
Ga-ORA1	TSDK-----
Ss-ORA1	SNDKM-----
Dr-ORA1	SSGKN-----
Gm-ORA1	SNEK-----
Lo-ORA1	STRI-----
Lo-ORA8a	HLSPG-----Q
Lo-ORA8b	HLSPG-----Q
Lo-ORA7	-----
Am-ORA2	-----
Fh-ORA2	RSI-----
Pf-ORA2	RSI-----
Xm-ORA2	HSI-----
Gm-ORA2	TAVST-----M
Ga-ORA2	STV-----
Hc-ORA2	SSM-----
On-ORA2	SSM-----
Ss-ORA2	STV-----
Ol-ORA2	-----
Tn-ORA2	-----
Tr-ORA2	-----
Dr-ORA2	-----
Lo-ORA2	STV-----
Am-ORA3	-----
Fh-ORA3	-----
Pf-ORA3	-----
Xm-ORA3	-----
Ga-ORA3	-----
Tn-ORA3	-----
Tr-ORA3	-----
Ol-ORA3a	-----
Ol-ORA3b	-----
Gm-ORA3	-----
Hc-ORA3	-----
On-ORA3	-----
Ss-ORA3a	-----
Ss-ORA3b	-----
Dr-ORA3a	-----
Dr-ORA3b	-----
Lo-ORA3	-----
Am-ORA4	-----H
Fh-ORA4	IKVKA-KVKSQR--
Pf-ORA4	KKVKD-KVIPRR--
Xm-ORA4	KMVKD-KVMPHR--
Hc-ORA4	-----
On-ORA4	-----
Ss-ORA4	IK-----
Ol-ORA4	INIRECKALNDRRE
Tn-ORA4	-----
Tr-ORA4	-----
Gm-Ora4	TKEKT---MSKK--
Ga-ORA4	VQVKG-NAQADK--
Dr-ORA4	TQSAM-K-----
Lo-ORA4	-----
Am-ORA6	-----
Dr-ORA6	-----
Fh-ORA6	-----
Pf-ORA6	-----
Xm-ORA6	-----
Ga-ORA6	-----
Hc-ORA6	-----
On-ORA6	-----
Tn-ORA6	-----
Tr-ORA6	-----
Gm-ORA6	-----
Ol-ORA6	-----
Lo-ORA6	-----
Ss-ORA6	-----R
Am-ORA5a	-----
Am-ORA5b	-----
Fh-ORA5	-----
Pf-ORA5	-----
Xm-ORA5	-----
Gm-ORA5	-----
Ga-ORA5	-----
Tn-ORA5	-----
Tr-ORA5	-----
Hc-ORA5	-----
On-ORA5	-----
Ss-ORA5a	-----
Ss-ORA5b	-----
Ol-ORA5	-----
Dr-ORA5	-----
Lo-ORA5	-----