

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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*** :***.**:****:* *.*:*** :****:****::* :. * :* :*:*

MGLRIHFVVDPHGWCCMGLIVFVWLYNIVIIIPKIVLFPHYEEGHIPGILIIIFYGISIFC
MGLRIHFVVDPHGWCCMGLIVFVWLYNIVIIIPKIVLFPHYEEGHIPGILIIIFYGISIFC
MGLRIHFVVDPHGWCCMGLIVFVWLYNFFLIPKIVLFPHYEEGHIPGILIIIFYGIAMFC
MGLRIHFVVDPHGWCCMGLIVFVWLYNFFLIPKIVLFPHYEEGHIPGILIIIFYGIAIFC
MGLRIHFVVDPHGWCCMGLIVFVWLYNFVLIPKIVLFPHYEEGHIPGILIIIFYGIAIFC
MGLRIHFVVDPHGWCCMGLIVFVWLYNIVIIIPKIVLFPHYEEGHIPGVLIIFYGIAIFC
MGLRIHFVVDPHGWCCMGLIVFVWLYNIVLIPKIVLFPHYEEGHIPGILIIIFYGISIFC
MGLRIHFVVDPHGWCCMGLIVFVWLYNIVLIPKIVLFPHYEEGHIPGILIIIFYGISIFC
MGLRIHFVVDPHGWCCMGLIVFVWLYNIVLIPKIVLFPHYEEGHIPGILIIIFYGIAIFC
MGLRIHFVVDPHGWCCMGLIVFVWLYNIILIPKIVLFPHYEEGHIPGILIIIFYSIAIFC
MGLRIHFVVDPOGWCCMGLIIFVWLYNTIFIPKIVLFPHYEEGHISAVAILCYLCSLFC
MGLRIHFVVDPOGWCCMGLIIFVWLYNTIFIPKIVLFPHYEEGHISAVAILCYLCSLFC
MGLRIHFVVDPOGWCCMGLIIFVWLYNTIFIPKIVLFPRYEEGHISAVAILCYLCSLFC
MGLRIHFVVDPOGWCCMGLIIFVWLYNTLFIPIILFPHYEEGHISTAAILCYLVSFC
MGLSIHFVVDPOGWCCVGAIFFIWFYNTLFIPLILFPRFDEGQISVAIWAYLYLSIFC
MGLRVHFVADPOGWCCMGLIIVFIWFYNTLLIPKLILFPHYEERHISAVVIATYYLTSLLC

1.....10.....20.....30.....40.....50.....60

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 LVALVRASLTDPGRLPENPKIPHAERELWELCNKCNLMRPKRSHHC SRCGHCVRRMDHHC
 LVALVRASLTDPGRLPENPKIPHAERELWELCNKCNLMRPKRSHHC SRCGHCVRRMDHHC
 LVALVRASITDPGRLPENPKIPHGEREFWELCNKCNLMRPKRSHHC SRCGHCVRRMDHHC
 LVALVRASIADPGRLPENPKIPHGEREFWELCNKCNLMRPKRSHHC SRCGHCVRRMDHHC
 LVALVRASITDPGRLPENPKIPHGEREFWELCNKCNLMRPKRSHHC SRCGHCVRRMDHHC
 LVALVRASITDPGRLPENPKIPHGEREFWELCNKCNLMRPKRSHHC SRCGHCVRRMDHHC
 LVALVRASITDPGRLPENPKIPHGEREFWELCNKCNLMRPKRSHHC SRCGHCVRRMDHHC
 LVALVRASITDPGRLPENPKIPHGEREFWELCNKCNLMRPKRSHHC SRCGHCVRRMDHHC
 LVALVRASFTDPGRLPENPKIPHGEREFWELCNKCNLMRPKRSHHC SRCGHCVRRMDHHC
 LVALVRASITDPGRLPENPKIPHGEREFWELCNKCNLMRPKRSHHC SRCGHCVRRMDHHC
 IASLVRASVADPGRLPENPKIPITEREFWELCNKCNMMRPKRSHHC SRCGHCVRRMDHHC
 IASLVRASVADPGRLPENPKIPITEREFWELCNKCNMMRPKRSHHC SRCGHCVRRMDHHC
 IASLVRASVADPGRLPENPKIPITEREFWELCNKCNMMRPKRSHHC SRCGHCVRRMDHHC
 IASLVRASVADPGRLPENPKIPITEREFWELCNKCNMMRPKRSHHC SRCGHCVRRMDHHC
 IASLVRASVADPGKLPENPKIPITEREFWELCNKCNMMRPKRSHHC SRCGHCVRRMDHHC
 IVSLLRASIADPGKLPETPKIPLTEREFWELCNKCNMMRPKRSHHC SRCGHCVRRMDHHC
 IISLLRASITADPGKLDSPKIPLTEKELWELCNKCNMMRPKRSHHC SRCGHCVRRMDHHC
 ITALIRASIADPGKLPONPEISHTERDYWELCNKCNMMRPKRSHHC SRCGHCVRRMDHHC
70.....80.....90.....100.....110.....120

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PWINNCVGEDNHWLFLQLCFYTELLTCYALMFSFCHYYYFLPLK-KRNLDLFVVRHELAI
PWINNCVGEDNHWLFLQLCFYTELLTCYALMFSFCHYYYFLPLK-TRNLDLFVVRHELAI
PWINNCVGEDNHWLFLQLCFYTELLTCYALMFSFCHYYYFLPLK-KRNLDLFVVRHELAI
PWINNCVGEDNHWLFLQLCFYTELLTCYALMFSFCHYYYFLPLK-KRNLDLFVVRHELAI
PWINNCVGEDNHWLFLQLCFYTELLTCYALMFSFCHYYYFLPLK-KRNLDLFVVRHELAI
PWINNCVGEDNHWLFLQLCFYTELLTCYALMFSFCHYYYFLPLK-KRNLDLFVVRHELAI
PWINNCVGEDNHWLFLQLCFYTELLTCYALMFSFCHYYYFLPLK-KRNLDLFVVRHELAI
PWINNCVGEDNHWLFLQLCFYTELLTSYALMFSFCHYYYFLPVK-KRNLDLFVVRHELAI
PWINNCVGEDNHWLFLQLCFYTELLTCYALMFSFCHYYYFLPLK-KHNLDLFVVRHELAI
PWINNCVGEDNHWLFLQLCFYTQILSSYTLILLDFCHYYYFLPLK-KDNWDVFVFRHELAL
PWINNCVGEDNHWLFLQLCFYTQILSSYTLILLDFCHYYYFLPLK-KDNWDVFVFRHELAL
PWINNCVGEDNHWLFLQLCFYTQILSSYTLILLDFCHYYYFLPLK-KDNWDVFVFRHELAL
PWINNCVGEDNHWLFLQLCFYTQILSSYTLILLDFCHYYYFLPLK-KDYGDVFVFRHELAL
PWINNCVGEDNHWLFLQLCFYTQLSSYTLILLDFCHYYYFLPLK-KVNWDLFVFRHELAL
PWINNCVGEDNHWLFLQLCFYTQLSSGYTLVLDFCHYYYFLPLAINWD--IFIFRHELAL
PWINNCVGEDNHWLFLQLCFYTQILSLFTLVLFNCQYYCFQPLTWNTDGESFVFGHELAL

.....130.....140.....150.....160.....170.....180

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Mus_musculus	MRLAAFMGITMLVGITGLFYTQLIGIITDFTTSIEKMS	216
Rattus_norvegicus	MRLAAFMGITMLVGITGLFYTQLIGIITDFTTSIEKMS	216
Bos_taurus	MRLAAFMGITMLVGITGLFYTQLIGIITDFTTSIEKMS	216
Equus_caballus	MRLAAFMGITLLVGITGLFYTQLIGIITDFTTSIEKMS	216
Macaca_mulatta	MRLAAFMGITMLVGITGLFYTQLIGIITDFTTSIEKMS	216
Callithrix_jacchus	MRLAAFMGITMLVGITGLFYTQLIGIITDFTTSIEKMS	216
Homo_sapiens	MRLAAFMGITMLVGITGLFYTQLIGIITDFTTSIEKMS	216
Pan_troglodytes	MRLAAFMGITMLVGITGLFYTQLIGIITDFTTSIEKMSNCCEDIVAQRSKIGHLCCGETM	239
Canis_lupus_familiaris	MRLAAFMGITMLVGITGLFYTQLIGIIT---FLMMN---GWKWTFGMLLL-RVQ	226
Heterocephalus_glaber	MRLAAFMGITMFVGITGLFYTQLIGIITDFTTSIEKMS	216
Pavo_muticus	LRISAFMGVIIILGGISGLFYTQLIGIFTDFTTSIEKMS	216
Pavo_cristatus	LRISAFMGVIIILGGISGLFYTQLIGIFTDFTTSIEKMS	216
Gallus_gallus	LRISAFMGIIILGGISGLFYTQLIGIFTDFTTSIEKMS	216
Anas_platyrhynchos	LRISAFMGLIIMLGGISGLFYTQLMGIFTDFTTSIEKMS	216
Chelonia_mydas	LRISTFMGIIMLGGISGLFYTQLVGIFTDFTTSIEKMS	216
Xenopus_tropicalis	LRISTFMGIVMFGGMCSLFYTOIMGILTDTTIEKMA	215
Latimeria_chalumnae	VRISTFMGILMFGGMNGLFYAQLTGILDTTIEKMS	217
190.....200.....210.....220.....230.....240	

.....190.....200.....210.....220.....230.....240

Mus_musculus	-----NCCEEISRP-----RKPWQQTFSVFGTRWKILWFIPFRROPLRVPY	259
Rattus_norvegicus	-----NCCEEISRP-----RKPWQQTFSVFGTRWKILWFIPFRROPLRVPY	259
Bos_taurus	-----NCCEEISRP-----RKPWQQTFSVFGTRWKILWFIPFRRROPLRVPY	259
Equus_caballus	-----NCCEEISRP-----RKPWQQTFSVFGTRWKILWFIPFRROPLRVPY	259
Macaca_mulatta	-----NCCEDISRP-----RKPWQQTFSVFGTRWKILWFIPFRROPLRVPY	259
Callithrix_jacchus	-----NCCEDISRP-----RKPWQQTFSVFGTRWKILWFIPFRROPLRVPY	259
Homo_sapiens	-----NCCEDISRP-----RKPWQQTFSVFGTRWKILWFIPFRROPLRVPY	259
Pan_troglodytes	VQVVRHRAVTEQEETACY-VYTTALEIKLCCSARDSLPISSWKTLVHPFGQFSYHFLEG	298
Canis_lupus_familiaris	VTYKGHVVYSWGQQVPSYPAAPEASEKEVWQOSLQKSFKNLHSKILVFTTFELAIKLFFEF	286
Heterocephalus_glaber	-----NCCEEVS RP-----RKPWQQTFSVFGTRWKILWFIPFRROPLRVPY	259
Pavo_muticus	-----NCCEDISRP-----RKPWQQTFSVFGTRWKILWFIPFRROPLRVPY	259
Pavo_cristatus	-----NCCEDISRP-----RKPWQQTFSVFGTRWKILWFIPFRROPLRVPY	259
Gallus_gallus	-----NCCEDISRP-----RKPWQQTFSVFGTRWKILWFIPFRROPLRAPY	259
Anas_platyrhynchos	-----NCCENVSRP-----RKPWQQTFSVFGTRWKILWFIPFRROPLRVPY	259
Chelonia_mydas	-----NCCEEISRP-----RKPWQQTFSVFGTRWKILWFIPFRROPLRIPY	259
Xenopus_tropicalis	-----SCCDEISR A-----RKPWQQTFSVFGTRWKILWFIPFRRROPLRVSY	258
Latimeria_chalumnae	-----NCCDEISR P-----RKPWQQTFSVFGTRWKILWFIPFRROPLRVSY	260
250.....260.....270.....280.....290.....300	

.....250.....260.....270.....280.....290.....300

Mus_musculus	HFANHV	265
Rattus_norvegicus	HFANHV	265
Bos_taurus	HFANHV	265
Equus_caballus	HFANHV	265
Macaca_mulatta	HFANHV	265
Callithrix_jacchus	HFANHV	265
Homo_sapiens	HFANHV	265
Pan_troglodytes	HFP---	301
Canis_lupus_familiaris	VAF---	289
Heterocephalus_glaber	HFANHV	265
Pavo_muticus	HFANHV	265
Pavo_cristatus	HFANHV	265
Gallus_gallus	HFANHV	265
Anas_platyrhynchos	HFANHV	265
Chelonia_mydas	HFANHV	265
Xenopus_tropicalis	YFANHV	264
Latimeria_chalumnae	HFTNHV	266

