

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/CCD0112 Tue Feb 1 11:35:00 2022

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*: : :                               : : . . : *
Mus_musculus      MAALTTVVVAAAAATAVAGAVAGAGA--AAGTGVGAAPTPOQSDGGCSASGGIRSFQLQNW 58
Rattus_norvegicus MAALTTVVVAAAAATAVAGAVAGAGA--AAGTGVGAAPTPOQSNVGFSSAGGIRPFQLQNW 58
Homo_sapiens      MAALTTVVVAAAAATAVAGAVAGAGA--ATGTGVGATPAPQQSDGCFSTSGGIRPFHLQNW 58
Pan_troglodytes   MAALTTVVVAAAAATAVAGAVAGAGA--PTGTGVGATPAPQQSDGCFSTSGGIRPFHLQNW 58
Macaca_mulatta    MAALTTVVVAAAAATAVAGAVAGAGA--ATGTGVGATPAPQQSDGCFSTSGGIRPFHLQNW 58
Callithrix_jacchus MAALTTVVVAAAAATAVAGAVAGAGA--ATGTGVGATPAPQQNDGCFSTSGGIRSFHLQNW 58
Bos_taurus        MAALTTVVVAAAAATAVAGAVAGAGA--APGTGVGAA-VPQQSDGCLGTSGGIRPFHLQNW 57
Equus_caballus     MAALTTVVVAAAAATAVAGAVAGAGA--TPGTGVGAAPVPQQSDGCFSTSGGIRPFQLQNW 58
Canis_lupus_familiaris MAALTTVVVAAAAATAVAGAVAGAGAGAAPGSGVGAAQVPOQNDSGFGTSGGIRPFQLQNW 60
Xenopus_tropicalis MATLATRMCEDSA-----VQNESHFSHVGGE-----RNW 29
Rhinatrema_bivittatum MSELIS-----NNDSCFSLSGSDSNFHIHW 26
Pavo_muticus       MAALATVCAAAAGQQ-----QNSDFFS--AAGAARQIONC 33
Pavo_cristatus     MAALATVCAAAAGQQ-----QNSDFFS--AAGAARQIONC 33
Gallus_gallus      MAALAAVCAAAAGQQ-----QNSDFFS--AAGAARQIONC 33
Chelonia_mydas     MAAVAT---ASGQQ-----QSDCSFSTLDSGQHFOFONW 31
1.....10.....20.....30.....40.....50.....60

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Mus_musculus      KQKVSRTTKKAEFIRTAEFKKNQVIVIEKDKHSHFYNQRGDFRTEYNMLEELENKLINSRK 118
Rattus_norvegicus KQKVSRTTKKAEFIRTAEKLNQVIVIEKDKHSHFYNQRGHFRTEYSLLEELENKLINSRK 118
Homo_sapiens      KQKVNQTKKAEFVRTAEKFKNQVINMEKDKHSHFYNQKSDFRIEHSMLEELENKLIHSRK 118
Pan_troglodytes   KQKVNQTKKAEFVRTAEKFKNQVINMEKDKHSHFYNQKSDFRIEHSMLEELENKLIHSRK 118
Macaca_mulatta    KQKVNQTKKAEFVRTAEKFKNQVINMEKDKHSHFYNQKSDFRIEHSMLEELENKLINSRK 118
Callithrix_jacchus KQKVNQTKKAEFIRTAEFKKNQVINMEKDKHSHFYNQKSDFRIEHSMLEELENKLINSRK 118
Bos_taurus        KQKVSRTTKKAEFIRTAEKYKNQVINLEKDKHSHFYNQKSDFRIEHSMLEELENKLINSRK 117
Equus_caballus     KQKVSRTTKKAEFIRTAEFKKNQVINIEKDKHSDFYNQKSDFRIEHGMLEELENKLINSRK 118
Canis_lupus_familiaris KQKVSRTTKKAEFIRTAEKLRNQVINIEKDKHSHFYNQKSDFRSEQSMLEELENKLINSRK 120
Xenopus_tropicalis KIKADQAKKAEYFRELEKIKQIANLEKDKNGNLYSKKNDFAEYSVLEEYEEKLACSRR 89
Rhinatrema_bivittatum KIKADQAKKAKFIREAEKFKYQIAILEKDKNGHLYSKKSDFRTEYSMLLEEHEHKLTDNRK 86
Pavo_muticus       KMKAEQAKKTEFVRIAENLRTLANTQKDKTGCLYNRRSDSRAEYSILEEELHKMSVNRK 93
Pavo_cristatus     KMKAEQAKKTEFVRIAENLRTLANTQKDKTGCLYNRRSDSRAEYSILEEELHKMSVNRK 93
Gallus_gallus      KMKAEQAKKTEFVRIAGKLRTLANTQKDKNGCLYNRKSDSRAEYSILEEELHOMSVHRK 93
Chelonia_mydas     MIKADQAKKAEFIRTAEKLNQVLNIEKDKNGHLYSKKSDFRVEYSTLEEELHKMTNNRK 91
.....70.....80.....90.....100.....110.....120

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Mus_musculus      TERAQIQQLAKIHNNVKKLQNLKDVKPTPDFVEKLREMMEIEENAINTFKEEORLIYE 178
Rattus_norvegicus MERAQIQQLAKIHNNVKKLQNLKSVKPTPDFVEKLREMMEIEENAINTFKEEORLIYE 178
Homo_sapiens      TERAQIQQLAKIHNNVKKLQNLKDVKPTPDFVEKLREMMEIEENAINTFKEEORLIYE 178
Pan_troglodytes   TERAQIQQLAKIHNNVKKLQNLKDVKPTPDFVEKLREMMEIEENAINTFKEEORLIYE 178
Macaca_mulatta    TERAQIQQLAKIHNNVKKLQNLKDVKPTPDFVEKLREMMEIEENAINTFKEEORLIYE 178
Callithrix_jacchus TERAQIQQLAKIHNNVKKLQNLKDVKPTPDFVEKLREMMEIEENAINTFKEEORLIYE 178
Bos_taurus        TERAQIQQLAKIYNNVKKLQNLKDAKPTPDFVEKLREMMEIEENAINTFKEEORLIYE 177
Equus_caballus     AERAKIQQLAKIHNNVKKLQNLKDVKPTPDFVEKLREMMEIEENAINTFKEEORLIYE 178
Canis_lupus_familiaris TERAQIQQLAKIHNNVKKLQNLKDVKPTPDFVEKLREMMEIEENAINTFKEEORLIYE 180
Xenopus_tropicalis AEKLKAKQQLSKIHNHVKRLQRLIDVKPTPEFVEKLVMMEIEVDNAICTFKEEORLIYE 149
Rhinatrema_bivittatum AERVKTEQELAKIHNNVKKLQRLKDVKPTPEFIDKLREMMEIEENAISSFKEEORLIYE 146
Pavo_muticus       TEKTKILQQLTKIRNNVKRLQRLDNVKPTSEFVDKLKEMLEEIEENAINTFKDEORQIYE 153
Pavo_cristatus     TEKTKILQQLTKIRNNVKRLQRLDNVKPTSEFVDKLKEMLEEIEENAINTFKDEORQIYE 153
Gallus_gallus      TEKTKILQQLTKIRNNVKRLQRLDDVKPTSEFVDKLKEMLEEIEHAINTYKDEORQIYE 153
Chelonia_mydas     AEKAKIQQLAKIHNNVKKLQRLKDVKPTPEFVEKLREMMEIEENAINGFKEEORLIYE 151
.....130.....140.....150.....160.....170.....180

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Mus_musculus	ELIQEEKTTNNELSAVSRRIESWALGNSETEKAFRAISSKVPVDRVTQRTLPQVVEFEK	238
Rattus_norvegicus	ELIQEEKTTNNELSAISRRIESWALGNSETERAFRAISSKLPVDRVTPSTLPEEVIEFEK	238
Homo_sapiens	ELIKEEEKTTNNELSAISRKIDTWALGNSETEKAFRAISSKVPVDKVTPTLPEEVLDFEK	238
Pan_troglodytes	ELIKEEEKTTNNELSAISRKIDTWALGNSETEKAFRAISSKVPVDKVTPTLPEEVLDFEK	238
Macaca_mulatta	ELIKEEEKTTNNELSAISRKIDTWALGNSETEKAFRAISSKVPVDKVTPTLPEEVLDFEK	238
Callithrix_jacchus	ELIKEEEKTTNNELSAISRKIDTWALGNSETEKAFRAISSKVHVVDKVTPTLPEEVLDFEK	238
Bos_taurus	ELIKEEEKTTNNELNAISRKIDTWALGNSETEKAFRAALSKVPVDKVTPTLPEEVVEFET	237
Equus_caballus	ELIKEEEKTTNNELSAISRKIDTWAMGNSETEKAFRAISSKVPVDKVTPTLPEEVVDFEK	238
Canis_lupus_familiaris	ELIKEEEKSTNNELSAISRKIDMWALSNLGAEKAFRAMSGKLPDGKVPSTLPEEVVDFEK	240
Xenopus_tropicalis	ELMKEEKTTSNELNVLEKKIEG--SLNTAPEKTFRAPCGKTPAEKMTSCQLPEEVVVFER	207
Rhinatrema_bivittatum	ELIKEEEKKVMNEIIALEKKRETWVLANSAAERGYRLPSGKMAVEKVMVSHLPKEVLEFEK	206
Pavo_muticus	QLLKDEKTAVNELSIFEKKVELWARSSSTTEKVLKLP SARISVNKTLENHLPKEVVEFER	213
Pavo_cristatus	QLLKDEKTAVNELSIFEKKVELWARSSSTTEKVLKLP SARISVNKTLENHLPKEVVEFER	213
Gallus_gallus	QLLKDEKTAVNELSIFEKKVELWATGSSTTEKVLKLP SARISVNKTLENHLPKEVVEFER	213
Chelonia_mydas	ELMKAEKTATNELSALQKKIDTWALGSSAIERVFKLP SGRIPVHKLQNLHPKEVIEFER	211
190.....200.....210.....220.....230.....240	
	:* *..** *** *: : *::: : * . : : * ::::** *:***	
Mus_musculus	FLQQTGGROGGWDALDHQNFVKVRNKHKGKPTFMKEVVEHLPGRTLDEVOQHEKWYQKFL	298
Rattus_norvegicus	FLQQTGGROGGWDDLDHQNFVKVRNKHKGKLTFMKEVIEHLPGRTLDEIQQHEKWYQKFL	298
Homo_sapiens	FLQQTGGROGAWDDYDHQNFVKVRNKHKGKPTFMEEVLEHLPGKTQDEVQOHEKWYQKFL	298
Pan_troglodytes	FLQQTGGROGAWDDYDHQNFVKVRNKHKGKPTFMEEVLEHLPGKTQDEVQOHEKWYQKFL	298
Macaca_mulatta	FLQQTGGROGGWDDYDHQNFVKVRNKHKGKPTFMEEVLEHLPGKTQDEVQOHEKWYQKFL	298
Callithrix_jacchus	FLQQTGGROGGWDDYDHQNFVKVRNKHKGKPTFMEEVLEHLPGRTQDEVQOHEKWYQKFL	298
Bos_taurus	FLQQTGGROGGWDDYDHQNFVKMRSKHKGKPVFMGEVLEHLPGRTQDEVQOHEKWYQKFL	297
Equus_caballus	FLQQTGGROGGWDDYDHQNFVKVRNKHKGKPTFMGEVLEHLPGRTQDEVQOHEKWYQKFL	298
Canis_lupus_familiaris	FLQQTGGROGGWDDYDHQNFVKVRNKHKGKPTFMGEVLENLPGRTQDEVQOHEKWYQKFL	300
Xenopus_tropicalis	FLQQTGGRLGGWDDFDHQSFVKVWTKHKGKATYLEEALAYLPSTREDVQOHEAWYQEF	267
Rhinatrema_bivittatum	FLQHTGGROGGWDDYDHQNFVKVWTKHKGKATYLEEALAYLPSTREDVQOHEAWYQEF	266
Pavo_muticus	FLQQTGGRRGGWDDSDHQNFVKVWTKHGRSLSYVDEALEYLCGRTKEDVQOHEGMWYREF	273
Pavo_cristatus	FLQQTGGRRGGWDDSDHQNFVKVWTKHGRSLSYVDEALEYLCGRTKEDVQOHEGMWYREF	273
Gallus_gallus	FLQQTGGROGGWDDCDHQNFVKVWTKHGRKLSYVDEALEYLCGRTKEDVQOHEGIWYQEF	273
Chelonia_mydas	FLQQTGGROGGWDDYDHQNFVKVWTKHKGKPSYIEEAEFLSRITKEDIQOHEWTWYQEF	271
250.....260.....270.....280.....290.....300	
	*:::***: ** * .: . : * . .: * ::::	
Mus_musculus	TLEEKKKESIQNWTKKQKKKEEILKLKEKVDTPVPLPSQSKAEDSPKQR-EEQRKKOKLA	357
Rattus_norvegicus	ALEEKKKESIQNWTKKQKKKEEILKLKEKADTTPPSQSKPEDNLKQK-EEQRKKOKLA	357
Homo_sapiens	ALEERKKESIQIWKTKKQKKREEIFKLKEKADNTPVLFHNKQEDNQKQK-EEQRKKOKLA	357
Pan_troglodytes	ALEERKKESIQSWTKKQKKREEIFKLKEKADNTPMLFHNKQEDNQKQK-EEQRKKOKLA	357
Macaca_mulatta	ALEERKKESIQSWTKKQKKREEIFKLNEKANNTPMLFHNKQEDNQKQK-EEQRKKOKLA	357
Callithrix_jacchus	ALEERKKESIQSWTKKQKKKEEIFKLKEKADNTPMLFHNKQEDNQKQK-EEQRKKOKLA	357
Bos_taurus	ALEERKKESIQHWTKKQKKKEEIFKLKEK-DSIQVLSHSKQEDNQKQK-EEQRKKOKLA	355
Equus_caballus	ALEERKKESIQNWTKKQKKKEEIFKFKEKAENIPMLFHNKQENNQKQK-EEQRKKOKLA	357
Canis_lupus_familiaris	ALEERKKESIQNWTKKQKKKEEIFKLKEKAENLPLFHNKQEDNQKQK-EEQRKKOKLA	359
Xenopus_tropicalis	FLEEKKKESIQEWKAKKQLEKGEIVKLQIKAKEIQQFNQKQESQKQKTEEEKRRKQOE	327
Rhinatrema_bivittatum	FLEDKKESIQKWLKLLQDKDAMLHOGKSKEVLESEYLVQAEAKQEKLKEERRRRQEE	326
Pavo_muticus	MLQDRRKESIKKWKEKQREKEENLKKKEKSEKIV--QRLQYEGDOMORAE-RRRQAAA	330
Pavo_cristatus	MLQDRRKESIKKWKEKQREKEENLKKKEKSEKIV--QRLQYEGDOMORAE-RRRQAAA	330
Gallus_gallus	ILQDRRKESIKKWKEKLOREKEERLKKKEKSEKIV--ERLQYEEEDOMORAE-RRRQAAA	330
Chelonia_mydas	ILEERKKESIEKWKMKKQKEKEILKQKQKSEMLKTENLQHEAAQKQKAEERKKQAAA	331
310.....320.....330.....340.....350.....360	

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Mus_musculus      VEAWKRRKSLSEMSAKLASQLREEEEEKERKQQRERQOSKLLKLLLESYTOORREQEEFLRL 417
Rattus_norvegicus VEAWKKQKSIEMSVKQASQLREEEEEKERKQQRERQOSKLLKLLLESYTOOKREQEEFLRL 417
Homo_sapiens      VEAWKKQKSIEMSMKCASQLKEEEEEKKKHOKERQOFKLKLLLESYTOOKKEQEEFLRL 417
Pan_troglodytes   VEAWKKQKSIEMSMKCASQLKEEEEEKKKHOKERQOFKLKLLLESYTOOKKEQEEFLRL 417
Macaca_mulatta    VEAWKKQKSIEMSMKYASHLKEEEEEKKKRQKERQOFKLKLLLESYTOOKKEQEEFLRL 417
Callithrix_jacchus VEAWKKQKSIEMSMKCASQLKEEEEEKKKHOKERQOFKLKLLLESYTOOKKEQEEFLRL 417
Bos_taurus        IEAWKKQRSIEMSMKNASQLKEEEEEKKKQQRERQOQCKLKLLETTYTOOKKEQEEFLRL 415
Equus_caballus    VEAWKKQKSIEMSMKYASQLKEEEEEKKKQOKERQOFKLKLLLESYTOOKKEQEEFLRL 417
Canis_lupus_familiaris VEAWKKQKSLERSMRRASQVKEEEEEKKKQOKERRQOFKLKLLLESYAOOKKEQEEFLRL 419
Xenopus_tropicalis LEAWKRQKEIDAAACIQAKIKEEEELKQKORERQOLEVKLLVVEEHIRIRKEKEDFLLL 387
Rhinatrema_bivittatum VEAWRKQKESEAAVKQAAQAKKEEEERERRQKQERQOLEVKLLVVEEYTOOKKIQEEFLRL 386
Pavo_muticus      ISAWK-----KQKASILQWNKHHS----- 349
Pavo_cristatus    ISAWK-----KQKASILQWNKHHS----- 349
Gallus_gallus     ISAWK-----KQKAENLQWSKFHN----- 349
Chelonia_mydas    VEAWKRHKELEFAMKQASRQKEEEEREKKQOKERQOFOLKLLLEKYTROKKEQETLQRL 391
.....370.....380.....390.....400.....410.....420

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Mus_musculus      EQEIKEKAKEAEKRKTAADELARFOERDLHKLELKILDRQAKKEEKAQKORRLTKLKEKV 477
Rattus_norvegicus EKEIKEKTEKAAEKRKTAADEISRFQERDLHKLELKILDRQAKKEEKAQKORRLTKLKEKV 477
Homo_sapiens      EKEIREKAKEAEKRKNAADEISRFQERDLHKLELKILDRQAKDEKSOQKORRLAKLKEKV 477
Pan_troglodytes   EKEIREKAKEAEKRKNAADEISRFQERDLHKLELKILDRQAKDEKAQKORRLAKLKEKV 477
Macaca_mulatta    EKEIREKAKEAEKRKTAADEISRFQERDLHKLELKILDRQAKDEKAQKORRLAKLKEKV 477
Callithrix_jacchus EKEIREKAKEAEKRKTAADEISRFQERDLHKLELKILDRQAKDEKAQKORRLAKLKEKV 477
Bos_taurus        EKEIREKTEKAAEKRKTAADEISRFQERDLHKLELKILNROLKEDEKAQKORRLAKLKEKV 475
Equus_caballus    EKEIREKTEKAAEKRKTADEEISRFQERDLHKLELKILDRQSKDEKAQKORRLAKLKEKV 477
Canis_lupus_familiaris EKEMREKTEKAAEKRKADEEISRFQERDLHKLELKILDRQKDEKAQKORRLAKLKEKV 479
Xenopus_tropicalis EKQMQEEMEQQEERRKMAVFEICRFQDRDLRKLEKAQERRAKEKSEDEKERRLAKLKEKV 447
Rhinatrema_bivittatum EKQIQEEAEREERQRSASAGICKFQERDFHKLELKALNKQAKKEEITEREKRLAKLKEKV 446
Pavo_muticus      ----- 349
Pavo_cristatus    ----- 349
Gallus_gallus     ----- 349
Chelonia_mydas    EKEKREEAEREERKRIAAEAISKFQERDLHKLELKILEKQAKKEEIEKEKRLAKLREKG 451
.....430.....440.....450.....460.....470.....480

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Mus_musculus      ENNVSRDPSRLYKPTKGWEERTKKIG--PSGSGPLLHIPHRAIPTWROGI----- 525
Rattus_norvegicus ESNVGRDPSRLYKPTRGWEQRTKKIG--PLDSGPLLHIPHRAIPTWROGI----- 525
Homo_sapiens      ENNVSRDPSRLYKPTKGWEERTKKIG--PTGSGPLLHIPHRAIPTWROGIQRRV- 529
Pan_troglodytes   ENNVSRDPSRLYKPTKGWEERTKKIG--PTGSGPLLHIPHRAIPTWROGIQRRV- 529
Macaca_mulatta    ENNVSRDPSRLYKPTKGWEERTKKIG--PTGSGPLLHIPHRAIPTWROGIQRRV- 529
Callithrix_jacchus ENNVSRDPSRLYKPTKGWEERTKKIG--PTGSGPLLHIPHRAIPTWROGIQRRV- 529
Bos_taurus        ENNVSRDPSRLYKPTKGWEERTKKIG--PAGSGPLLHIPHRAIPTWROGV----- 523
Equus_caballus    ENNVSRDPSRLYRPTKGWEERTKKIG--PTGSGPLLHIPHRAIPTWROGV----- 525
Canis_lupus_familiaris ENNISRDPSRLYRPTKGWEERAKKTG--STSSGPLLHIPHRAIPTWROGLQKRI- 531
Xenopus_tropicalis QVHVDRDPSRLCKLTKGWEERCKETG--PSGSAPLQHIPHRAVPTWROGL----- 495
Rhinatrema_bivittatum EIHVKRDASRLCQFTKGWVERTKNTG--PTGSGPLLHIPHRAVPSWROGL----- 494
Pavo_muticus      ----- 349
Pavo_cristatus    ----- 349
Gallus_gallus     ----- 349
Chelonia_mydas    YPNLEARVIAEHLHIQEDLHTNKVTNWVLRNFHKTFLCYEYCVLLHGFQVLTII 506
.....490.....500.....510.....520.....530.....

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