

# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /home/ceglab2/Desktop/ajinkya/pavo/MSDADL14up Feb 15 17:02:59 2022

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Pavo_muticus      -----
Pavo_cristatus    -----
Gallus_gallus      MRCNYINRSEGSKFPIYRALPAPAEGGAVPTRRPRSQPEGSGVYKAQDWRPEGTAAPGFT 60
Anas_platyrhynchos -----
Chelonia_mydas     -----
Xenopus_tropicalis -----
Rhinatrema_bivittatum -----
Bos_taurus         -----
Equus_caballus     -----
Pteropus_alecto    -----
Homo_sapiens       -----
Pan_troglodytes    -----
Macaca_mulatta     -----
Callithrix_jacchus -----
Mus_musculus       -----
Ornithorhynchus_anatinus -----
Latimeria_chalumnae -----
1.....10.....20.....30.....40.....50.....60

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:
Pavo_muticus      -----MKARR-----ACGLT-----10
Pavo_cristatus    -----MKARR-----ACGLT-----10
Gallus_gallus      SRPAGGAALRARRSFWGIQSERREDESAARLRPDAAVSAFAAGNGRSDGERGWGRVSGCW 120
Anas_platyrhynchos -----MTALR-----SFGLT-----10
Chelonia_mydas     -----MAALR-----IFGLT-----10
Xenopus_tropicalis -----MKVDPIR-----IFGLT-----12
Rhinatrema_bivittatum -----MAALR-----IFGST-----10
Bos_taurus         -----MAVAS-----RRASGWALLL-----15
Equus_caballus     -----MAAAS-----RSASGWALLL-----15
Pteropus_alecto    -----MAAAS-----RSASGWALLL-----15
Homo_sapiens       -----MAAAS-----RSASGWALLL-----15
Pan_troglodytes    -----MAAAS-----RSASGWALLL-----15
Macaca_mulatta     -----MAAAS-----WSASGWALLL-----15
Callithrix_jacchus -----MAAAS-----RSASGWALLL-----15
Mus_musculus       -----MTPAS-----RSACRWALLL-----15
Ornithorhynchus_anatinus -----MHTDK-----EMTD-----9
Latimeria_chalumnae -----MEFLR-----IFGIA-----10
.....70.....80.....90.....100.....110.....120

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Pavo_muticus      -----LLLVLQQSASGSGVFOQLKHEFVNSRGALASGELCTPHCRTFFRVCLKHFOAVV 65
Pavo_cristatus    -----LLLVLQQSASGSGVFOQLKHEFVNSRGALASGELCTPHCRTFFRVCLKHFOAVV 65
Gallus_gallus      PRRDGAVLCSEFVSASGSGVFOQLKHEFVNSRGALASGELCPAPHCRTFFRVCLKHFOAVV 180
Anas_platyrhynchos -----FLLMVLQQGVAGSGVFOLELHEFVNSHGSLASGKPCAPHCRTFFRVCLKHFOAVV 65
Chelonia_mydas     -----FLLMILQQRVSGSGVFOLELHEFANSQGSLASGKPCSPHCRTFFRVCLKHFOAVV 65
Xenopus_tropicalis -----FLLILVKQVSSSGVFOLELHEFINTNGMLVNGKSCLPNCRTFFKICLKHYQTVV 66
Rhinatrema_bivittatum -----FLFMIFQQVSCSGVFOLELOEFENSDGLLANGKSCLPDCRTFFWICLKHFQMVV 64
Bos_taurus         -----LVALW-QQPAAGSGVFOLOLEFANERGVLASGRPCEPGCRTFFRVCLKHFOAVV 69
Equus_caballus     -----LVALW-QQRAAGSGVFOLOLEFANERGVLASGRPCEPGCRTFFRVCLKHFOAVV 69
Pteropus_alecto    -----LVALW-QQRAAGSGVFOLOLEFANERGVLASGRPCEPGCRTFFRVCLMHFOAVF 69
Homo_sapiens       -----LVALW-QQRAAGSGVFOLOLEFINERGVLASGRPCEPGCRTFFRVCLKHFOAVV 69
Pan_troglodytes    -----LVALW-QQRAAGSGVFOLOLEFINERGVLASGRPCEPGCRTFFRVCLKHFOAVV 69
Macaca_mulatta     -----LVALW-QQRAAGSGVFOLOLEFVNERGVLASGRPCEPGCRTFFRVCLKHFOAVV 69
Callithrix_jacchus -----LVALW-QQRAAGSGVFOLOLEFVNERGVLASGRPCEPGCRTFFRVCLKHFOAVV 69
Mus_musculus       -----LAVLW-PQRAAGSGIFOLRLQEFVNQRMGLANGQSCEPGCRTFFRICLKHFQATF 70
Ornithorhynchus_anatinus -----LDHGAAGSGVFOLOLRDFANEGGLLASGRSCPHCRTFFRVCLKHFOAVV 59
Latimeria_chalumnae -----ILLRTLHQVSGSGVFOLRLOEFDNVQSLLDQDSSCLPSCRAFFRVCLKHFOQTVV 64
.....130.....140.....150.....160.....170.....180

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# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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      : * ****.: ***** :* : .*:*****: :*: *::: :
Pavo_muticus      SPGSCITFGSIITPVLGVNSFSIR--DTERFDSPIKLPFNFTWPGTFSLIICAWHAPANYL 123
Pavo_cristatus    SPGSCITFGSIITPVLGVNSFSIR--DTERFDSPIKLPFNFTWPGTFSLIICAWHAPANYL 123
Gallus_gallus     SPGSCITFGSIITPVLGVNSFSIR--DTERFDSPIKLPFNFTWPGTFSLIICAWHAPANYL 238
Anas_platyrhynchos SPGPCTFGSIITPVLGINSFSVK--DTEKFDSPIKLPFNFTWPGTFSLIICAWHAPANYL 123
Chelonia_mydas    SPGSCITFGSIVTPVLGVNSFSVK--ETERFGSPIKLPFNFTWPGTFSLIIEAWHAPANYL 123
Xenopus_tropicalis SPGSCITFGSVITPVLGINSFSIK--GMEGFTNPIKLPFNFTWPKTFSLIIEAFHSPDLS 124
Rhinatrema_bivittatum SPGPCTFGSVVTPVLGINSFSVK--ALEGFSSPIKLPFNFTWPGTFSLIIEAFHAPSDYL 122
Bos_taurus        SPGPCTFGSVSTPVLGINSFAVGDNSSGGGRNPLQLPFNFTWPGTFSLIIEAWHAPGDDL 129
Equus_caballus    SPGPCTFGSVSTPVLGINSFAVGDDSSGGGRNPLQLPFNFTWPGTFSLIIEAWHAPGDDL 129
Pteropus_allecto  SPGPCTFGSVSTPVLGINSFAVGDDSSGGGRNPLQLPFNFTWPGTFSLIIEAWHAPGDDL 129
Homo_sapiens      SPGPCTFGTVSTPVLGINSFAVRDDSSGGGRNPLQLPFNFTWPGTFSLIIEAWHAPGDDL 129
Pan_troglodytes   SPGPCTFGTVSTPVLGINSFAVRDDSSGGGRNPLQLPFNFTWPGTFSLIIEAWHAPGDDL 129
Macaca_mulatta    SPGPCTFGSVSTPVLGINSFAVRDDSSGGGRNPLQLPFNFTWPGTFSLIIEAWHAPGDDL 129
Callithrix_jacchus SPGPCTFGSVSTPVLGINSFAVRDDSSGGGRNPLQLPFNFTWPGTFSLIIEAWHAPGDDL 129
Mus_musculus      SEGPCTFGNVSTPVLGINSFVVRDKNSGSGRNPLQLPFNFTWPGTFSLNIQAWHTPGDDL 130
Ornithorhynchus_anatinus SPGPCTFGTVSTPVLGVDISFAVRDESHGGRRNPLQLPFNFTWPGTFSLIIEAWHAPGDDL 119
Latimeria_chalumnae TPGDCTFGSVLTPVLGSRISFQVE---DESFERNPIQLPFNFTWPGSFTLIIEAWFSLADSQ 121
.....190.....200.....210.....220.....230.....240

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      **: . *: * ** * * : . :* :****:*.:.****.*:
Pavo_muticus      PQGSRLPPEEWLISQMAIQRLAVGEVWSQDVQSS--PLTQLRYSYRVVCSSENYYGESCSR 182
Pavo_cristatus    PQGSRLPPEEWLISQMAIQRLAVGEVWSQDVQSS--PLTQLRYSYRVVCSSENYYGESCSR 182
Gallus_gallus     PQGSRLPPEEWLISQMAIQRLAVGEVWSQDVQSS--PLTQLRYSYRVVCSSENYYGESCSR 297
Anas_platyrhynchos PQGSRLPPEEWLISQMAIQRLAVGEVWSQDVQSS--PLTQLRYSYRVVCSSENYYGESCSR 182
Chelonia_mydas    PQGSRLPPEEWLISQMAIQRLAVGEVWSQDVQSS--PLTQLRYSYRVVCSSENYYGESCSR 182
Xenopus_tropicalis -----QQEIKISQFTIQKPLNVGEEWSRDIQSGGSQIQKFYSYRVVCSSENYYGESCSR 177
Rhinatrema_bivittatum PAAAGSIDRALSISQFAIQRLAVGEAWLPDVQGG--PQTQLRYSYRVVICSEHYYGESCTR 181
Bos_taurus        RPEA--LPPDALISKIAIQGSLAVGQNWLLDEQTSPL--TRLRYSYRVVICSDNYYGDSCSR 186
Equus_caballus    RPEA--LTPDALISKIAIQGSLAVGQNWLLDEQTSLL--TRLRYSYRVVICSDNYYGDSCSR 186
Pteropus_allecto  RPEA--MPPNALISKITIQGSLAVGQNWLLDEQTPLP--TRLRYSYRVVICSDNYYGDSCSR 187
Homo_sapiens      RPEA--LPPDALISKIAIQGSLAVGQNWLLDEQTSSTL--TRLRYSYRVVICSDNYYGDNCSR 186
Pan_troglodytes   RPEA--LPPDALISKIAIQGSLAVGQNWLLDEQTSSTL--TRLRYSYRVVICSDNYYGDNCSR 186
Macaca_mulatta    RPEA--LPPDALISKIAIQGSLAVGQNWLLDEQTSSTL--TRLRYSYRVVICSDNYYGDNCSR 186
Callithrix_jacchus RPEA--LPSDALISKIAIQGSLAVGQNWLLDEQTSSTL--TRLRYSYRVVICSDNYYGDNCSR 186
Mus_musculus      RPET--SPGNLSLSQIIIQGSLAVGKIWRTEQNDTL--TRLRYSYRVVICSDNYYGESCSR 187
Ornithorhynchus_anatinus PAGF--QSADALISKMAIQRLAVGEDWSLDEQSGPR--TRLRYSYRVVICSDHYYGDSCSR 176
Latimeria_chalumnae PADT--KNPALLISRVAIKNQSLAVGVWFQDFHGDQQ--AKLRFYSYRVVICSEDYYGKNCSS 178
.....250.....260.....270.....280.....290.....300

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      *** *: * **** *: :* :*: ** *: ** *: ** *: : . * *. * . * . ***
Pavo_muticus      LCKRRDDRFGHYVCEADGSLTCLPGWTGEYCTKPICLSGCAEQNGYCTKPGECICRSGWQ 242
Pavo_cristatus    LCKRRDDRFGHYVCEADGSLTCLPGWTGEYCTKPICLSGCAEQNGYCTKPGECICRSGWQ 242
Gallus_gallus     LCKRRDDRFGHYVCEADGSLTCLPGWTGEYCTKPICLSGCAEQNGYCTKPGECICRSGWQ 357
Anas_platyrhynchos LCKRRDDRFGHYVCEADGSLTCLPGWTGEYCTKPICLSGCTEQNGYCNKPGECICRPGWQ 242
Chelonia_mydas    LCKRRDDFFGHYVCEPDGSLACLPGWTGEYCTEPICLSGCTEQNGYCNKPGECICRPGWQ 242
Xenopus_tropicalis LCKPRDDRFGHYLCEPDGRVSLKLGWKGEYCAEPICLDGCSEQNGYCNKPGECTCRPGWQ 237
Rhinatrema_bivittatum LCKARDDTFGHYVCEPDGTLTCLPGWTGEYCSDPICLTGCSEINGKCKKPGECICLPGWQ 241
Bos_taurus        LCKKRNDHFGHYVCQPDGSLSLCLPGWTGEYCEQPICLSGCHEQNGYCSKPAECICRPGWQ 246
Equus_caballus    LCKKRNDHFGHYVCQPDGSLSLCLPGWTGEYCEQPICLSGCHEQNGYCSKPAECICRPGWQ 246
Pteropus_allecto  LCKKRNDHFGHYVCQPDGSLSLCLPGWTGEYCEQPICLSGCHEQNGYCSKPAECICRPGWQ 247
Homo_sapiens      LCKKRNDHFGHYVCQPDGSLSLCLPGWTGEYCEQPICLSGCHEQNGYCSKPAECICRPGWQ 246
Pan_troglodytes   LCKKRNDHFGHYVCQPDGSLSLCLPGWTGEYCEQPICLSGCHEQNGYCSKPAECICRPGWQ 246
Macaca_mulatta    LCKKRNDHFGHYVCQPDGSLSLCLPGWTGEYCEQPICLSGCHEQNGYCSKPAECICRPGWQ 246
Callithrix_jacchus LCKKRNDHFGHYVCQPDGSLSLCLPGWTGEYCEQPICLSGCHEQNGYCSKPAECICRPGWQ 246
Mus_musculus      LCKKRDDHFGHYECQPDGSLSLCLPGWTGKYCDQPICLSGCHEQNGYCSKPDCEICRPGWQ 247
Ornithorhynchus_anatinus LCKRRDDHFGHYVCQADGSLSLCLPGWTGEYCDQPICLSGCHEQNGYCSKPAECICRPGWQ 236
Latimeria_chalumnae LCKPRDDHFGHYNCADGQPTCFPGWEGKYCQTPICLSGSKQNGYCNKTDEICRPGWQ 238
.....310.....320.....330.....340.....350.....360

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# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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** *.:* : ** **:* *:* * *****:***:***** **:*:* ** *:*
Pavo_muticus      GRYCDECIPHIGCRHGTCKTQWQICDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 302
Pavo_cristatus    GRYCDECIPHIGCRHGTCKTQWQICDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 302
Gallus_gallus     GRYCDECIPHIGCRHGTCKTQWQICDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 417
Anas_platyrhynchos GRYCDECIPHIGCRHGTCKTQWQICDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 302
Chelonia_mydas    GRYCDECIPHIGCRHGTCKTQWQICDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 302
Xenopus_tropicalis GRFCDECIPHNGCRHGTCTPWQCTCDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 297
Rhinatrema_bivittatum GRFCDECIPHNGCRHGTCTPWQCTCDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 301
Bos_taurus        GRLCNECIPHNGCRHGTCTPWQCTCDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 306
Equus_caballus    GRLCNECIPHNGCRHGTCTPWQCTCDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 306
Pteropus_allecto  GRLCNECIPHNGCRHGTCTPWQCTCDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 307
Homo_sapiens      GRLCNECIPHNGCRHGTCTPWQCTCDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 306
Pan_troglodytes   GRLCNECIPHNGCRHGTCTPWQCTCDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 306
Macaca_mulatta    GRLCNECIPHNGCRHGTCTPWQCTCDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 306
Callithrix_jacchus GRLCNECIPHNGCRHGTCTPWQCTCDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 306
Mus_musculus      GRLCNECIPHNGCRHGTCTPWQCTCDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 307
Ornithorhynchus_anatinus GRLCDRCIPHNGCRHGTCTPWQCTCDEGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 296
Latimeria_chalumnae GRFCDKCVRYPGCVHGTCEKPDWCQCVGWGGLFCDQDLNYCTHHRPCKNGATCMNTGQG 298
.....370.....380.....390.....400.....410.....420

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Pavo_muticus      SYTCSCKPGFTGVDCEHEISECDSPNCRNGGSCDTMENGYRCVCPGGYYGAHCEHSALT 362
Pavo_cristatus    SYTCSCKPGFTGVDCEHEISECDSPNCRNGGSCDTMENGYRCVCPGGYYGAHCEHSALT 362
Gallus_gallus     SYTCSCKPGFTGVDCEHEISECDSPNCRNGGSCDTMENGYRCVCPGGYYGAHCEHSALT 477
Anas_platyrhynchos SYTCSCKPGFTGVDCEHEISECDSPNCRNGGSCDTMENGYRCVCPGGYYGAHCEHSALT 362
Chelonia_mydas    SYTCSCKPGFTGVDCEHEISECDSPNCRNGGSCDTMENGYRCVCPGGYYGAHCEHSALT 362
Xenopus_tropicalis SYTCSCKPGFTGVDCEHEISECDSPNCRNGGSCDTMENGYRCVCPGGYYGAHCEHSALT 357
Rhinatrema_bivittatum SYTCSCKPGFTGVDCEHEISECDSPNCRNGGSCDTMENGYRCVCPGGYYGAHCEHSALT 361
Bos_taurus        SYTCTCRPGYTGVDCLELSECDSPNCRNGGSCDKQEDGYHCLCPGGYYGLHCEHSTLSC 366
Equus_caballus    SYTCTCRPGYTGVDCLELSECDSPNCRNGGSCDKQEDGYHCLCPGGYYGLHCEHSTLSC 366
Pteropus_allecto  SYTCTCRPGYTGVDCLELSECDSPNCRNGGSCDKQEDGYHCLCPGGYYGLHCEHSTLSC 367
Homo_sapiens      SYTCTCRPGYTGVDCLELSECDSPNCRNGGSCDKQEDGYHCLCPGGYYGLHCEHSTLSC 366
Pan_troglodytes   SYTCTCRPGYTGVDCLELSECDSPNCRNGGSCDKQEDGYHCLCPGGYYGLHCEHSTLSC 366
Macaca_mulatta    SYTCTCRPGYTGVDCLELSECDSPNCRNGGSCDKQEDGYHCLCPGGYYGLHCEHSTLSC 366
Callithrix_jacchus SYTCTCRPGYTGVDCLELSECDSPNCRNGGSCDKQEDGYHCLCPGGYYGLHCEHSTLSC 366
Mus_musculus      GYTCTCRPGYTGEHCELGSKCASPNCRNGGSCDKQEDGYHCLCPGGYYGLHCEHSTLSC 367
Ornithorhynchus_anatinus SYTCTCRPGYTGVDCLELSECDSPNCRNGGSCDKQEDGYHCLCPGGYYGLHCEHSTLSC 356
Latimeria_chalumnae SYTCTCRPGYTGVDCLELSECDSPNCRNGGSCDKQEDGYHCLCPGGYYGLHCEHSTLSC 358
.....430.....440.....450.....460.....470.....480

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Pavo_muticus      IDSPCFNGGTCLEKEQGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 422
Pavo_cristatus    IDSPCFNGGTCLEKEQGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 422
Gallus_gallus     IDSPCFNGGTCLEKEQGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 537
Anas_platyrhynchos IDSPCFNGGTCLEKEQGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 422
Chelonia_mydas    VDSPCFNGGTCLEKEQGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 422
Xenopus_tropicalis GNSPCFNGGTCREVEGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 417
Rhinatrema_bivittatum ADSPCFNGGTCREVEGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 421
Bos_taurus        ADSPCFNGGTCREVEGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 426
Equus_caballus    ADSPCFNGGTCREVEGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 426
Pteropus_allecto  ADSPCFNGGTCREVEGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 427
Homo_sapiens      ADSPCFNGGTCREVEGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 426
Pan_troglodytes   ADSPCFNGGTCREVEGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 426
Macaca_mulatta    ADSPCFNGGTCREVEGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 426
Callithrix_jacchus ADSPCFNGGTCREVEGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 426
Mus_musculus      ADSPCFNGGTCREVEGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 427
Ornithorhynchus_anatinus ADSPCFNGGTCREVEGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 416
Latimeria_chalumnae ADSPCFNGGTCREVEGASYTCVCPFGFTGSGNCEKKVDRCTSNPCANDGNCFYLGQIRVC 418
.....490.....500.....510.....520.....530.....540

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# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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** .**:* * :..* : ** :** * * .. * * *: *: * : *
Pavo_muticus      RCRAGFSGQKCEININDCARSPCSNGGTCHDLINDYTCTCLPGYSGRNC DIKTR-DECAS 481
Pavo_cristatus    RCRAGFSGQKCEININDCARSPCSNGGTCHDLINDYTCTCLPGYSGRNC DIKTR-DECAS 481
Gallus_gallus     RCRAGFSGQKCEININDCARSPCSNGGTCHDLINDYTCTCLPGYSGRNC DIKTR-DECAS 596
Anas_platyrhynchos RCRPGFSGKKCEININDCARNP CSNGGTCHDLINDYTCTCLPGYSGRNC DIKTR-DECAS 481
Chelonia_mydas    RCRTGFSGQKCEININECARNP CSNGGSC HDLINDYTCTCLPGYTGRNC DIKTR-DECAS 481
Xenopus_tropicalis RCRPGFTGPTCAINIDDCAKNPCLNGGICTDAVNDYYCDPPGYRGRTCNVKT--IECIL 475
Rhinatrema_bivittatum RCRSGFTGPKCEVNINDCYRNP CSNGGSC RD LINDYDCTCMAGYSGKNC DVRI G-DECAF 480
Bos_taurus        RCRPGFTGAHCEINISDCARSPCVHGGTCHDLENGFVCTCPAGFSGRRCEVRMPAEACAS 486
Equus_caballus    RCRPGFTGTGHCERHISDCARSPCAHGGTCHDLENGLVCTCPAGFSGRRCEVRTPSDICAS 486
Pteropus_alecto   RCRPGFTGTGHCHELHISDCARSPCAHGGTCHDLENGLVCTCPAGFSGRRCEVRTPSDACAS 487
Homo_sapiens      RCRPGFTGTGTYCELHVSDCARNP CAHGGTCHDLENGLMCTCPAGFSGRRCEVRTSIDACAS 486
Pan_troglodytes   RCRPGFTGTGTYCERHISDCARNP CAHGGTCHDLENGLMCTCPAGFSGRRCEVRTSIDACAS 486
Macaca_mulatta    RCRPGFTGTGTYCERHVSDCARNP CAHGGTCHDLESGLMCTCPAGFSGRRCEVRTSIDACAS 486
Callithrix_jacchus RCRPGFTGTGTYCERHMSDCARNP CAHGGTCHDLENGFMCTCPAGFSGRRCEVRTSIDACAS 486
Mus_musculus      RCRPGFTGTGHCHELHISDCARSPCAHGGTCHDLENGPVCTCPAGFSGRRCEVRTSIDACAS 487
Ornithorhynchus_anatinus RCPGPFAGARCEINVDDCARGPCA HGGSC RD LVNGFACACPPGFSGRRC ELREPADPCLS 476
Latimeria_chalumnae RCLSGFTGQRCEFSINKCDQHP CANGGACIDRINDYACICPYGYSGR TCAIGPK-DDCAS 477
.....550.....560.....570.....580.....590.....600

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** * .**          * * . * * **          .**:* :..*
Pavo_muticus      GPCENGGTCYSGLYSANFVCYCPSGFMGSRCELPVYSVPITLPP---KPVPWIAISMVG 538
Pavo_cristatus    GPCENGGTCYSGLYSANFVCYCPSGFMGSRCELPVYSVPITLPP---KPVPWIAISMVG 538
Gallus_gallus     GPCENGGTCYSGLYSANFVCYCPSGFMGSRCELPVYSVPITLPP---KPVPWIAISMVG 653
Anas_platyrhynchos GPCENGGTCYSGLYSANFVCYCPSGFMGSRCELPVYSVPITLPP---KPVPWIAISMVG 538
Chelonia_mydas    GPCQNGATCYGGLYNANFLNCNCPYGFVMSRCEFPVYTVVPVYP---KPVPWIAISMVG 538
Xenopus_tropicalis -PCMNGGTCYIGPYDNN--CDCPPGFMGSLCENPIEP-----KVDFPWWAVFMGAG 523
Rhinatrema_bivittatum RPCQNGGTCHGGRYDNNFACACPYGFMGSRCEFTVYPTVTQTPTDEDNSFPWVAIFMGAG 540
Bos_taurus        GPCFN GATCYPGLPPDNFVCNCPYGFVGSRC EF RMSMPPT-----FPWVAVSLGVG 537
Equus_caballus    GPCFN GATC Y TGLSTDSFVCNCPYGFVGSRC EF PVSMPPS-----FPWVAVSLGVG 537
Pteropus_alecto   GPCYNGATCYTGPSPDNFVCNCPYGFVGSRC EF PVSMPPS-----FPWVAVSLGVG 538
Homo_sapiens      SPCFN RATCYTDLSTDTFVCNCPYGFVGSRC EF PVGLPPS-----FPWVAVSLGVG 537
Pan_troglodytes   SPCFN RATCYTDLSTDTFVCNCPYGFVGSRC EF PVGLPPS-----FPWVAVSLGVG 537
Macaca_mulatta    SPCFN RATCYTDLSTDTFVCNCPYGFVGSRC EF PVGLPPS-----FPWVAVSLGVG 537
Callithrix_jacchus SPCLN RATCYTDLSTDTFVCNCPYGFVGSRC EF PVGLPPS-----FPWVAVSLGVG 537
Mus_musculus      GPCFN GATCYTGLSPNNFVCNCPYGFVGSRC EF PVGLPPS-----FPWVAVSLGVG 538
Ornithorhynchus_anatinus GPCQNGATCFPEASPSGYVCHCPYGFMGRLCEFLAYRQPAPATG-----FPWVAASLGAG 531
Latimeria_chalumnae GPCLNGGTCSSPEYGIHFVCHCLVSFTGIRCEMPVITVPVPMPP---AGFPWMAVSMVAG 534
.....610.....620.....630.....640.....650.....660

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.: **: : : : .*: : :          :*** ****:****:**** *: : ***
Pavo_muticus      LVALLILFCMIAMVIRQMRMHPQQD---LETMNNLSDFQKDNLIPASQLKNTNKNKDLEV 595
Pavo_cristatus    LVALLILFCMIAMVIRQMRMHPQQD---LETMNNLSDFQKDNLIPASQLKNTNKNKDLEV 595
Gallus_gallus     LVALLILFCMIAMVIRQMRMHPQQD---LETMNNLSDFQKDNLIPASQLKNTNKNKDLEV 710
Anas_platyrhynchos LVALLILFCMIAMVIRQMRMHPQQD---LETMNNLSDFQKDNLIPASQLKNTNKNKDLEV 595
Chelonia_mydas    LVALLVLF CMIAMVIRQMRHPEQD---LETMNNLSDFQKDNLIPASQLKNTNKNKDLEV 595
Xenopus_tropicalis FVGVLVLLCMVVIITFRHFRKQPLHE---SNTMNNLSDFQKGNLIPASQLKNINKKKDLEV 580
Rhinatrema_bivittatum LVALLLLFCMIVMVVRHIRKHPQQD---TETMNNLSDFQKDNLIPASQLKNTNKKKDLEV 597
Bos_taurus        LVVVVLVLLCMVAVAVRQLRLRRPDGGSRE-AMNNLSDFQKDNLIPTAQLKNTNQKKELEV 596
Equus_caballus    LVVVVLVLLGMVAVAVRQLRLRRPDGGSRE-AMNNLSDFQKDNLIPTAQLKNTNQKKELEV 596
Pteropus_alecto   LVVVVLVLLGMVAVAVRQLRLRRPDGGSRE-AMNNLSDFQKDNLIPTAQLKNTNQKKELEV 597
Homo_sapiens      LAVLLVLLGMVAVAVRQLRLRRPDGGSRE-AMNNLSDFQKDNLIPTAQLKNTNQKKELEV 596
Pan_troglodytes   LAVLLVLLGMVAVAVRQLRLRRPDGGSSE-AMNNLSDFQKDNLIPTAQLKNTNQKKELEV 596
Macaca_mulatta    LAVLLVLLGMVAVAVRQLRLRRPDGGSRE-AMNNLSDFQKDNLIPTAQLKNTNQKKELEV 596
Callithrix_jacchus LAVLLVLLGMVAVAVRQLRLRRPDGGSRE-AMNNLSDFQKDNLIPTAQLKNTNQKKELEV 596
Mus_musculus      LVVLLVLLVMVVAVRQLRLRRPDDESRE-AMNNLSDFQKDNLIPTAQLKNTNQKKELEV 597
Ornithorhynchus_anatinus LVAVLVLLAMVAVAVRQLRARAEPPGGGTMMNNLSDFQKDNLVPAQLKNTNQKKELEV 591
Latimeria_chalumnae LVALLMFLCLIVIIILRHIHRQRLG-QELEAMNNRSDFORDNLIPTSQLKNTNKKMDLEV 593
.....670.....680.....690.....700.....710.....720

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# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /home/ceglab2/Desktop/ajinkya/pavo/MSA/MSA114up Feb 15 17:02:59 2022

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Pavo_muticus      DCVLEKSNY-KPKNHKLDYNLVKDLTS---RGT-HEDKYYKSEKCLGD-KSPLRLHSEKP 649
Pavo_cristatus    DCVLEKSNY-KPKNHKLDYNLVKDLTS---RGT-HEDKYYKSEKCLGD-KSPLRLHSEKP 649
Gallus_gallus     DCGLEKSNY-KPKNHKLDYNLVKDLTS---RGT-QEDKYYKSEKCLGE-KSPLRLHSEKP 764
Anas_platyrhynchos DCGLEKSNY-KPKNHKLDYNLVKDLTS---RGT-QEDKYYKSEKCLGD-KSPLRLHSEKP 649
Chelonia_mydas    DCGLEKSNY-KPKNHILDYNLVKDLTS---RGT-QEDKYYKSEKCLGE-KPPLRLYSEKP 649
Xenopus_tropicalis DCGIEKSNY-KLKNHTLDCNLTGTMIGNVS-SGIGKGNKFHNSEKCLEEEKFPLRFHSEKP 639
Rhinatrema_bivittatum NCGLEKSNY-KRKNHAVDFNLMKDLTGGIIGGTGKEEFHKGEKCLEEEKSPLHLHSEKP 656
Bos_taurus        DCGLDKSNCGKQQNHTLDYNLAPGILLG----RGILPGKYSHSDKSLGE-KAPLRIHSEKP 651
Equus_caballus    DCGLDKSNCGKQQNHTLDYNLAPGPLG----RGTILGKYSHGDKSLGE-KAPLRLHSEKP 651
Pteropus_alecto   DCGLDKSNCGKQQNHTLDYNLAPGPLG----RGTMSGKYSHSDKSLGE-KAPLRLHSEKP 652
Homo_sapiens      DCGLDKSNCGKQQNHTLDYNLAPGPLG----RGTMPGKFPHSDKSLGE-KAPLRLHSEKP 651
Pan_troglodytes   DCGLDKSNCGKQQNHTLDYNLAPGPLG----RGTMPGKFPHSDKSLGE-KAPLRLHSEKP 651
Macaca_mulatta    DCGLDKSNCGKQQNHTLDYNLAPGPLG----RGTMPGKFPHSDKSLGE-KAPLRLHSEKP 651
Callithrix_jacchus DCGLDKSNCGKQQNHTLDYNLAPGPPG----RGTMPGKFPHSDKSLGE-KAPLRLHSEKP 651
Mus_musculus      DCGLDKSNCGKQLNHTLDYNLAPGILLG----RGGMPGKYPHSDKSLGE-KVPLRLHSEKP 652
Ornithorhynchus_anatinus DCGEDKSYCTKPLNGRHDPNLAPAAP-----TAKYPLSDKGLGE-KVPLRIPSDRP 641
Latimeria_chalumnae DCGMEKSNY-KQKNRTLDYNLVKDLKD---GLLQEDKCLKSEKCLEEEKVPLRLHSEKH 648
.....730.....740.....750.....760.....770.....780

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*****:*.*****:  *:*****.*****
Pavo_muticus      ECRISAICSPRDSMYQSVFVITEERNECIIATEV----- 683
Pavo_cristatus    ECRISAICSPRDSMYQSVFVITEERNECIIATEV----- 683
Gallus_gallus     ECRISAICSPRDSMYQSVFVITEERNECIIATEV----- 798
Anas_platyrhynchos ECRISAICSPRDSMYQSVFVITEERNECIIATEV----- 683
Chelonia_mydas    ECRISAICSPRDSMYQSVFVITEERNECVIATEV----- 683
Xenopus_tropicalis ECRISTICSSRDSMYQSIYVIAEERNECVIATEV----- 673
Rhinatrema_bivittatum ECRISTICSPRDSMYQSIFVIAEERNECIIATEV----- 690
Bos_taurus        ECRISAICSPRDSMYQSVCLISEERNECVIATEV----- 685
Equus_caballus    ECRISAICSPRDSMYQSVCLISEERNECVIATEV----- 685
Pteropus_alecto   ECRISAICSPRDSMYQSVCLISEERNECVIATEVVSIGLICPSSMCPPAF 701
Homo_sapiens      ECRISAICSPRDSMYQSVCLISEERNECVIATEV----- 685
Pan_troglodytes   ECRISAICSPRDSMYQSVCLISEERNECVIATEV----- 685
Macaca_mulatta    ECRISAICSPRDSMYQSVCLISEERNECVIATEV----- 685
Callithrix_jacchus ECRISAICSPRDSMYQSVCLISEERNECVIATEV----- 685
Mus_musculus      ECRISAICSPRDSMYQSVCLISEERNECVIATEV----- 686
Ornithorhynchus_anatinus ECRISAICPPRDSMYQSVCLISEERNECVIATEV----- 675
Latimeria_chalumnae ECRISTICSPRDSMYQSVFVIAEERNECVIATEV----- 682
.....790.....800.....810.....820.....

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