

## CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /home/ceglab2/Desktop/ajinkya/pavo/MSDA/MSDA1/MSDA1.mxd Date Modified: Feb 15 15:45:20 2022

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Species	Sequence	Position
Pavo_muticus	-----	
Pavo_cristatus	-----	
Gallus_gallus	-----MGGVGGRRALLR-----	12
Anas_platyrhynchos	-----MRGGGRRALPL-----	11
Chelonia_mydas	-----MGRGALP-----	7
Homo_sapiens	-----MRGSHRAAPALRPRGRLWP-----	19
Pan_troglodytes	-----MRGSHRAAPALWPRGRLWP-----	19
Macaca_mulatta	-----MRGSQRAAPALRRRGRLWP-----	19
Callithrix_jacchus	-----MRGSQRAARTLPRGGLWP-----	19
Bos_taurus	-----MRGSDRAAAALRPRGRVWP-----	19
Equus_caballus	-----MSGSERAAPALRPRGRLWP-----	19
Pteropus_alecto	-----	
Mus_musculus	-----MTGGGRAALALQPRGRLWP-----	19
Ornithorhynchus_anatinus	MAAAWPOGGDGTPLPSRGRRRGSQASTLRSRRLPTELARASGLGFDQRSAPPGPPEEQQR	60
Rhinatrema_bivittatum	-----MSWC CRAQ-----	9
Xenopus_tropicalis	-----MRAP-----	4
Latimeria_chalumnae	-----	
	1.....10.....20.....30.....40.....50.....60	

Species	Sequence	Position
Pavo_muticus	-----ALLAVLALPRGGGAAMDECTEERSGRPQRCMPEFVNAAFNATVVAT	46
Pavo_cristatus	-----ALLAVLALPRGGGAAMDECTEERSGRPQRCMPEFVNAAFNATVVAT	46
Gallus_gallus	-----VLALLAVLALPRGGGAAMDECTEERSGRPQRCMPEFVNAAFNATVVAT	60
Anas_platyrhynchos	-----VLAAALALALPRGCGAAMDECAEERSGRPQRCMPEFVNAAFNATVVAT	59
Chelonia_mydas	-----LLLLLELAGRCAAAMDECADEASGRPQRCMPEFVNAAFNVTVVAT	52
Homo_sapiens	-----VLAVLAAAAAAGCAQAAMDECTDE-GGRPQRCMPEFVNAAFNVTVVAT	66
Pan_troglodytes	-----VLAVLAAAAAAGCAQAAMDECTDE-GGRPQRCMPEFVNAAFNVTVVAT	66
Macaca_mulatta	-----VLAVLAAAAAG-CAQAAMDECTDE-GGRPQRCMPEFVNAAFNVTVVAT	65
Callithrix_jacchus	-----VLAVLAAAAAG-CARAAMDECTDE-GGRPQRCMPEFVNAAFNVTVVAT	65
Bos_taurus	-----VLVVLAAAAAG-CARAAMDECTDE-GGRPQRCMPEFVNAAFNVTVVAT	65
Equus_caballus	-----VLAVLAAAAAG-CARAAMDECTDE-GGRSQRCPMPEFVNAAFNVTVVAT	65
Pteropus_alecto	-----MDECTDE-GGRPQRCMPEFVNAAFNVTVVAT	30
Mus_musculus	-----LLAVLAAVAGC--VRAAMDECADE-GGRPQRCMPEFVNAAFNVTVVAT	64
Ornithorhynchus_anatinus	RLAARAPGEAGELLLLLLAGAVG-RAAPAMDECTDE-GGRPQRCMPEFVNAAFNVTVVAT	118
Rhinatrema_bivittatum	-----LLFSLLLQLSGAALAAMDECTDE-SGRAQRCMPEFVNAAFNVTVVAT	55
Xenopus_tropicalis	-----VLAVLAVLLLG-TVRAAMDECYEE--GSPQRCMPEFVNAAFNATVVAT	49
Latimeria_chalumnae	-----	

	100	110	120	130	140	150	160	170	180
Pavo_muticus	NTCGTPAAEEYCVQ	TGVTGVTQS	CHLCDAS	QPHLRHGASFL	TDYNS	QADSTWW	QSQSM	LAG	106
Pavo_cristatus	NTCGTPAAEEYCVQ	TGVTGVTQS	CHLCDAS	QPHLRHGASFL	TDYNS	QADSTWW	QSQSM	LAG	106
Gallus_gallus	NTCGTPAAEEYCVQ	TGVTGVTQS	CHLCDAS	QPHLRHGASFL	TDYNS	QADSTWW	QSQSM	LAG	120
Anas_platyrhynchos	NTCGSPAEEYCVQ	TGVTGVTQS	CHLCDAA	QPHLRHGAFL	TDYNS	QADTTWW	QSQSM	LAG	119
Chelonia_mydas	NTCGSPAEEYCVQ	TGVTGVTKS	CHLCDAT	QPHLQHGAFL	TDYN	QADTTWW	QSQT	MLAG	111
Homo_sapiens	NTCGTPPEEYCVQ	TGVTGVTKS	CHLCDAG	QPHLQHGAFL	TDYNNQ	ADTTWW	QSQT	MLAG	126
Pan_troglodytes	NTCGTPPEEYCVQ	TGVTGVTKS	CHLCDAG	QPHLQHGAFL	TDYNNQ	ADTTWW	QSQT	MLAG	126
Macaca_mulatta	NTCGTPPEEYCVQ	TGVTGVTKS	CHLCDAG	QPHLQHGAFL	TDYNNQ	ADTTWW	QSQT	MLAG	125
Callithrix_jacchus	NTCGTPPEEYCVQ	TGVTGVTKS	CHLCDAG	QPHLQHGAFL	TDYNNQ	ADTTWW	QSQT	MLAG	125
Bos_taurus	NTCGTPPEEYCVQ	TGVTGVTKS	CHLCDAG	QPHLQHGAFL	TDYNNQ	ADTTWW	QSQT	MLAG	125
Equus_caballus	NTCGTPPEEYCVQ	TGVTGVTKS	CHLCDAG	QPHLQHGAFL	TDYNNQ	ADTTWW	QSQT	MLSG	125
Pteropus_alecto	NTCGTPPEEYCVQ	TGVTGVTKS	CHLCDAG	QPHLQHGAFL	TDYNNQ	ADTTWW	QSQT	MLAG	90
Mus_musculus	NTCGTPPEEYCVQ	TGVTGVTKS	CHLCDAG	QPHLQHGAFL	TDYNNQ	ADTTWW	QSQT	MLAG	124
Ornithorhynchus_anatinus	NTCGAPPEEYCVQ	TGVTGVTKS	CHLCDAA	QPHLQHGAAYL	TDYNNQ	AETTWW	QSQT	MLAG	178
Rhinatrema_bivittatum	NTCGSPPEEYCVQ	TGVTGVTKS	CHQCDAG	QPHLQHGAAYL	TDYNNQ	ADTTWW	QSQT	MLAG	115
Xenopus_tropicalis	NTCGTPPEEYCVQ	TGVTGVTKS	SCHICDSG	QFHLQHGAEYL	TDYNNQ	AEITWW	QSQT	MLAG	109
Latimeria_chalumnae	-----MALGRNINQQRASQLTMEFFSPMIKR								28
	.....130	.....140	.....150	.....160	.....170	.....180			

# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /home/ceglab2/Desktop/ajinkya/pavo/MSData/MSData166.fasta Date: Feb 15 15:45:20 2022

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      : * :.***:*****:*****:***: * *** * *****.**
Pavo_muticus      VOHPAAVNLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGPWVPYQYYSGSCESTY 166
Pavo_cristatus    VOHPAAVNLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGPWVPYQYYSGSCESTY 166
Gallus_gallus     VOHPAAVNLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGPWVPYQYYSGSCESTY 180
Anas_platyrhynchos VOHPAAVNLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGPWVPYQYYSGSCESTY 179
Chelonia_mydas    VOYPSSINLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGPWVPYQYYSGSCENTY 171
Homo_sapiens      VOYPSSINLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGPWIPYQYYSGSCENTY 186
Pan_troglodytes   VOYPSSINLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTLEDGPWIPYQYYSGSCENTY 186
Macaca_mulatta    VOYPSSINLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGPWIPYQYYSGSCENTY 185
Callithrix_jacchus VOYPSSINLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGPWVPYQYYSGSCENTY 185
Bos_taurus        VOYPNSINLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGPWIPYQYYSGSCENTY 185
Equus_caballus    VOYPNSINLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGPWIPYQYYSGSCENTY 185
Pteropus_alecto   VOYPNSINLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGRWAPYQYYSGSCENTY 150
Mus_musculus      VOYPNSINLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGPWIPYQYYSGSCENTY 184
Ornithorhynchus_anatinus VOYPSTINLTLLHLGKAFDITYVRLKFHTSRPESFTIYKRTREDGPWIPYQYYSGSCENTY 238
Rhinatrema_bivittatum VOYPSSALNLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGPWVPYQYYSGSCENTY 175
Xenopus_tropicalis IQYPSTINLTLLHLGKAFDITYVRLKFHTSRPESFAIYKRTREDGPWIPYQYYSGSCEKTY 169
Latimeria_chalumnae KHLNPAFNLSLHLGKAFDITYVRLKFHTSRPESFAIYKRTSEDGPWIPYQYYSGSCEKTY 88
      .....190.....200.....210.....220.....230.....240

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      * *.***** *****:*****:***: * *** * *****.**
Pavo_muticus      NKVNRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 226
Pavo_cristatus    NKVNRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 226
Gallus_gallus     NKVNRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 240
Anas_platyrhynchos NKVNRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 239
Chelonia_mydas    QKLNRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 231
Homo_sapiens      SKANRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 246
Pan_troglodytes   SKANRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 246
Macaca_mulatta    SKANRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 245
Callithrix_jacchus LKANRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 245
Bos_taurus        SKATRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 245
Equus_caballus    SKANRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 245
Pteropus_alecto   SKANRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 210
Mus_musculus      SKANRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 244
Ornithorhynchus_anatinus RKPNNRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 298
Rhinatrema_bivittatum HKLNRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 235
Xenopus_tropicalis QKFNNRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 229
Latimeria_chalumnae QKQNNRRGFIRTEGEDEQQALCTDEFSDISPLTGGNVAFSTLEGRPSAYNFDNSPVLQEWVTA 148
      .....250.....260.....270.....280.....290.....300

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      *****:*****:*****:*****:***: * *** * *****.**
Pavo_muticus      TDIRVSLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECIRNELGKLVCN 286
Pavo_cristatus    TDIRVSLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECIRNELGKLVCN 286
Gallus_gallus     TDIRVSLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECIRNELGKLVCN 300
Anas_platyrhynchos TDIRVSLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECVRNELGKLVCN 299
Chelonia_mydas    TDIRVTLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECVKNDFGKLVCN 291
Homo_sapiens      TDIRVTLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECMKNEFDKLVCN 306
Pan_troglodytes   TDIRVTLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECMKNEFDKLVCN 306
Macaca_mulatta    TDIRVTLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECMKNEFDKLVCN 305
Callithrix_jacchus TDIRVTLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECMKNEFDKLVCN 305
Bos_taurus        TDIRVTLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECVKNDFGKLVCN 305
Equus_caballus    TDIRVTLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECVKNDFGKLVCN 305
Pteropus_alecto   TDIRVTLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECVKNDFGKLVCN 270
Mus_musculus      TDIRVTLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECVKNDFGKLVCN 304
Ornithorhynchus_anatinus TDIRVTLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECVKDFGKLVCN 358
Rhinatrema_bivittatum TDIRVTLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECAKNEFDKLVCN 295
Xenopus_tropicalis TDIRVTLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECVRNEFEKIVCN 289
Latimeria_chalumnae TDIRVTLNRLNTFGDEVFNDPKVLKSYYYAISDFAVGGRCKCNGHASECVKNEFDKLVCN 208
      .....310.....320.....330.....340.....350.....360

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# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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*****: * *** *****:*****:***:.. ** .*.***:*****.*****: *****
Pavo_muticus          CKHNTFGDDCEKCLPFFNDRPWRRATAESANECLPCDCNGRSQECYFDPPELYRSTGHGGH 346
Pavo_cristatus        CKHNTFGDDCEKCLPFFNDRPWRRATAESANECLPCDCNGRSQECYFDPPELYRSTGHGGH 346
Gallus_gallus         CKHNTFGDDCEKCLPFFNDRPWRRATAESANECLPCDCNGRSQECYFDPPELYRSTGHGGH 360
Anas_platyrhynchos    CKHNTFGVDCEKCLPFFNDRPWRRATAESANECLPCDCNGRSQECYFDPPELYRSTGHGGH 359
Chelonia_mydas        CKHNTFGEDCEKCLPFFNDRPWRRATAESANECLSCNCNGRSRECYFDAELYSKGGHGGH 351
Homo_sapiens          CKHNTYGVDCEKCLPFFNDRPWRRATAESASECLPCDCNGRSQECYFDPPELYRSTGHGGH 366
Pan_troglodytes       CKHNTYGVDCEKCLPFFNDRPWRRATAESASECLPCDCNGRSQECYFDPPELYRSTGHGGH 366
Macaca_mulatta        CKHNTYGVDCEKCLPFFNDRPWRRATAESASECLPCDCNGRSQECYFDPPELYRSTGHGGH 365
Callithrix_jacchus    CKHNTYGVDCEKCLPFFNDRPWRRATAESASECLPCDCNGRSQECYFDPPELYRSTGHGGH 365
Bos_taurus            CKHNTYGVDCEKCLPFFNDRPWRRATAESASECLPCDCNGRSQECYFDPPELYRSTGHGGH 365
Equus_caballus        CKHNTYGVDCEKCLPFFNDRPWRRATAESASECLPCDCNGRSQECYFDPPELYRSTGHGGH 365
Pteropus_alecto       CKHNTYGVDCEKCLPFFNDRPWRRATAESASECLPCDCNGRSQECYFDPPELYRSTGHGGH 330
Mus_musculus          CKHNTYGVDCEKCLPFFNDRPWRRATAESASECLPCDCNGRSQECYFDPPELYRSTGHGGH 364
Ornithorhynchus_anatinus CKHNTYGVDCEKCLPFFNDRPWRRATAESANECLPCDCNGRSQECYFDPPELYRSTGHGGH 418
Rhinatrema_bivittatum CKHNTYGVDCEKCLPFFNDRPWRRATAESANECLPCDCNGRSQECYFDPPELYRSTGHGGH 355
Xenopus_tropicalis    CKHNTFGSDCEKCLPFFNDRPWRRATAESANECLPCDCNGRSQECYFDPPELYRSTGHGGH 349
Latimeria_chalumnae   CKHNTFGVDCEMCLPFFNDRPWRRATAENPNECQPCNCHGKSQECYFDPPELYRATGHGGH 268
.....370.....380.....390.....400.....410.....420

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* . * .****. *****:***:.. * . * .****.*****.*****:***:*****:
Pavo_muticus          CAGCRDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGEK 406
Pavo_cristatus        CAGCRDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGEK 406
Gallus_gallus         CMGCRDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGEK 420
Anas_platyrhynchos    CVGCQDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 419
Chelonia_mydas        CIGCLDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 411
Homo_sapiens          CTNCQDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 426
Pan_troglodytes       CTNCQDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 426
Macaca_mulatta        CTNCQDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 425
Callithrix_jacchus    CTNCQDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 425
Bos_taurus            CTNCQDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 425
Equus_caballus        CTNCQDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 425
Pteropus_alecto       CTNCQDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 390
Mus_musculus          CTNCQDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 424
Ornithorhynchus_anatinus CTNCQDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 478
Rhinatrema_bivittatum CTGCTDNTDGAHCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 415
Xenopus_tropicalis    CTGCDNTDGPNCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 409
Latimeria_chalumnae   CTGCDNTDGPNCERCRCDSFYRLGSEEGCLPCSCNPVGSLSLSTQCDSYGQCSCKPGVMGDK 328
.....430.....440.....450.....460.....470.....480

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Pavo_muticus          CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 466
Pavo_cristatus        CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 466
Gallus_gallus         CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 480
Anas_platyrhynchos    CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 479
Chelonia_mydas        CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 471
Homo_sapiens          CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 486
Pan_troglodytes       CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 486
Macaca_mulatta        CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 485
Callithrix_jacchus    CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 485
Bos_taurus            CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 485
Equus_caballus        CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 485
Pteropus_alecto       CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 450
Mus_musculus          CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 484
Ornithorhynchus_anatinus CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 538
Rhinatrema_bivittatum CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 475
Xenopus_tropicalis    CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 469
Latimeria_chalumnae   CDCRQPGFHSLSLSEAGCRPCSCNPAGSTGECNMETGRCTCKDNVEGFHCERCKPGFFHLDLP 388
.....490.....500.....510.....520.....530.....540

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# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /home/ceglab2/Desktop/ajinkya/pavo/MSData/MSData1661.fasta Date: Nov 15 15:45:20 2022

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      * :***.***:*****:.* **      * * *: . : * .:* .*: : *
Pavo_muticus      SNPRGCTPCFCFGHSSVCTNAVGYSVYSITSSFOFGEDEWHAEQRDGSQVPLQWSSETQD 526
Pavo_cristatus    SNPRGCTPCFCFGHSSVCTNAVGYSVYSITSSFOFGEDEWHAEQRDGSQVPLQWSSETQD 526
Gallus_gallus     SNPRGCTPCFCFGHSSVCTNAVGYSVYSITSSFOFGEDEWHAEQRDGSQVPLQWSSETQD 540
Anas_platyrhynchos SNPRGCTPCFCFGHSSVCTNAVGYSIYSITSSFOFGEDEWHAEQRDGSQVPLQWSSETQD 539
Chelonia_mydas    ANLRGCTPCFCFGHSSVCTNAVGYSIYSITSSFOFGEDEWHAEQRDGSQVPLQWSSETQD 531
Homo_sapiens      SNPRGCTPCFCFGHSSVCTNAVGYSVYSISSTFQIDEDGWRAEQRDGSQVPLQWSSETQD 546
Pan_troglodytes   SNPRGCTPCFCFGHSSVCTNAVGYSVYSISSTFQIDEDGWRAEQRDGSQVPLQWSSETQD 546
Macaca_mulatta    SNPRGCTPCFCFGHSSVCTNAVGYSVYSISSTFQIDEDGWRAEQRDGSQVPLQWSSETQD 545
Callithrix_jacchus SNPRGCTPCFCFGHSSVCTNAVGYSVYSISSTFQIDEDGWRAEQRDGSQVPLQWSSETQD 545
Bos_taurus        SNPRGCTPCFCFGHSSVCTNAVGYSVYSITSTFETDEDGWRAEQRDGSQVPLQWSSETQD 545
Equus_caballus    SNPRGCTPCFCFGHSSVCTNAVGYSVYSITSTFQIDEDGWRAEQRDGSQVPLQWSSETQD 545
Pteropus_alecto   SNPRGCTPCFCFGHSSVCTNAVGYSVYIPITSTFQIDEDGWRAEQRDGSQVPLQWSSETQD 510
Mus_musculus      SNPKGCTPCFCFGHSSVCTNAVGYSVYDISSTFQIDEDGWRAEQRDGSQVPLQWSSETQD 544
Ornithorhynchus_anatinus TNPRGCTPCFCFGHSSVCSNAQGYSIHTIISTFQIDEGWRAEQRDGSQVPLQWSSETQD 598
Rhinatrema_bivittatum TNPRGCTPCFCFGHSSVCTNAEGYSIHSISSTFQIDEGWRAEQRDGSQVPLQWSSETQD 535
Xenopus_tropicalis ANPRGCTPCFCYGHSSVCSAEGYRVSSIVSTFESGVEGWTAQRDGSQVPLQWSSETQD 529
Latimeria_chalumnae LNPHGCTACFCFGHSSVCTNAEGYSIHTISSRFQDQAEGWSAEQRGGAEVLLRWSPTNGD 448
.....550.....560.....570.....580.....590.....600

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      :****.*** *:.* ** :*** *      **.*:***: .:*****:****:****
Pavo_muticus      ISVISDNFYFPIYFVAPRKFLGNQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 586
Pavo_cristatus    ISVISDNFYFPIYFVAPRKFLGNQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 586
Gallus_gallus     ISVISDSYFPIYFVAPRKFLGNQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 600
Anas_platyrhynchos ISVISDSYFPMYFVAPRKFLGNQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 599
Chelonia_mydas    ISVISDSYFPIYFVAPRKFLGNQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 591
Homo_sapiens      IAVISDSYFPRYFIAPAKFLGQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 606
Pan_troglodytes   IAVISDSYFPRYFIAPAKFLGQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 606
Macaca_mulatta    IAVISDSYFPRYFIAPAKFLGQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 605
Callithrix_jacchus IAVISDSYFPRYFIAPAKFLGQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 605
Bos_taurus        IAVISDSYFPRYFIAPAKFLGQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 605
Equus_caballus    IAVISDSYFPRYFIAPAKFLGQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 605
Pteropus_alecto   VAVISDSYFPRYFIAPAKFLGQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 570
Mus_musculus      IAVISDSYFPRYFIAPAKFLGQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 604
Ornithorhynchus_anatinus ISVISDSYFPIYFIAPDQFLGNQVLSYGQNLTFSSFRADKRDTRLAEDLVLEGAGLRVSV 658
Rhinatrema_bivittatum ISVISDSYFPIYFPAEKFLGNQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 595
Xenopus_tropicalis VSVISESYFPIYFIAPAKFLGNQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 589
Latimeria_chalumnae ISVISDDYFPIYFVAPAKFLGQVLSYGQNLTFSSFRVDRRDTRLAEDLVLEGAGLRVSV 508
.....610.....620.....630.....640.....650.....660

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      *****. * **:*.*:*****:..:***:.* *** *****:* :***
Pavo_muticus      PLIAQGNSSYPSESPLTYTFRLEHAADYPWRPALSADFQKLLHNLTAIKIRGTYERSAG 646
Pavo_cristatus    PLIAQGNSSYPSESPLTYTFRLEHAADYPWRPALSADFQKLLHNLTAIKIRGTYERSAG 646
Gallus_gallus     PLIAQGNSSYPSESPLTYTFRLEHAADYPWRPALSADFQKLLHNLTAIKIRGTYERSAG 660
Anas_platyrhynchos PLIAQGNSSYPSESPLTYTFRLEHAADYPWRPALSADFQKLLHNLTAIKIRGTYERSAG 659
Chelonia_mydas    PLIAQGNSSYPSENTVKYAFRLHEADYPWRPALTPEFQKLLNLTSAIKIRGTYERSAG 651
Homo_sapiens      PLIAQGNSSYPSETTVKYVFRLEHAADYPWRPALTPEFQKLLNLTSAIKIRGTYERSAG 666
Pan_troglodytes   PLIAQGNSSYPSETTVKYVFRLEHAADYPWRPALTPEFQKLLNLTSAIKIRGTYERSAG 666
Macaca_mulatta    PLIAQGNSSYPSETTVKYVFRLEHAADYPWRPALTPEFQKLLNLTSAIKIRGTYERSAG 665
Callithrix_jacchus PLIAQGNSSYPSETTVKYVFRLEHAADYPWRPALTPEFQKLLNLTSAIKIRGTYERSAG 665
Bos_taurus        PLIAQGNSSYPSETTVKYVFRLEHAADYPWRPALTPEFQKLLNLTSAIKIRGTYERSAG 665
Equus_caballus    PLIAQGNSSYPSETTVKYVFRLEHAADYPWRPALTPEFQKLLNLTSAIKIRGTYERSAG 665
Pteropus_alecto   PLIAQGNSSYPSETTVKYVFRLEHAADYPWRPALTPEFQKLLNLTSAIKIRGTYERSAG 630
Mus_musculus      PLIAQGNSSYPSETTVKYIFRLHEADYPWRPALTPEFQKLLNLTSAIKIRGTYERSAG 664
Ornithorhynchus_anatinus PLIAQGNSSYPSETTLKYVFRLEHAADYPWRPALTPEFQKLLHNLTAIKIRGTYERSAG 718
Rhinatrema_bivittatum PLIAQGNSSYPSENTLKYVFRLEHAADYPWRPALTPEFQKLLHNLTEIKIRGTYERSAG 655
Xenopus_tropicalis PLIAQGNSSYPSETTQRYIFRMHEADYPWRPALTPEFQKMLQNLTAIKIRGTYERSAG 649
Latimeria_chalumnae PLIAQGNSSYPSESKQTYVFRLEHAADYPWRPALTPEFQKLLHNLTAIKIRGTYERSAG 568
.....670.....680.....690.....700.....710.....720

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## CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /home/ceglab2/Desktop/ajinkya/pavo/MSDA/MSDA1/MSDA1.mxd Date Modified: Feb 15 15:45:20 2022

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	..*:.:.*:.*	*.*****:**	**	*****	*.******	*.*:.***	*.*			
Pavo_muticus	HLDDVTITS	SAVPGAGVPA	AAWVESCS	CP	TGYEGQFC	ERCSPGYRRET	PGLGPYSP	CVPTCT	706	
Pavo_cristatus	HLDDVTITS	SAVPGAGVPA	AAWVESCS	CP	TGYEGQFC	ERCSPGYRRET	PGLGPYSP	CVPTCT	706	
Gallus_gallus	HLDDVTITS	SAVPGAGVPA	AAWVESCS	CP	PAGYEGQFC	ERCSPGYRRET	PGLGPYSP	CVPTCT	720	
Anas_platyrhynchos	HLDDVTITS	ALPGGVP	AAWVESCS	CP	PAGYEGQFC	ERCSSGYRRET	PGLGPYSP	CVPTCT	719	
Chelonia_mydas	YLDDVTIVS	SARPEGTP	ATWVESCT	CP	PAGYHGQFC	EHCAPGYRRET	PSLGPYSL	CVLCTC	711	
Homo_sapiens	YLDDVTLAS	ARPGGVP	ATWVESCT	CP	VGYGGQFC	EMCLSGYRRET	PNLGPYSP	CVLCTC	726	
Pan_troglodytes	YLDDVTLAS	ARPGGVP	ATWVESCT	CP	VGYGGQFC	EMCLSGYRRET	PNLGPYSP	CVLCTC	726	
Macaca_mulatta	YLDDVTLAS	ARPGGVP	ATWVESCT	CP	VGYGGQFC	EMCLSGYRRET	PSLGPYSP	CVLCTC	725	
Callithrix_jacchus	YLDDVTLAS	ARPGTGV	ATWVESCT	CP	VGYGGQFC	EMCLSGYRRET	PSLGPYSP	CVLCTC	725	
Bos_taurus	YLDDVTLAS	AHPGGVP	ATWVESCT	CP	VGYGGQFC	EVCLSGYRRET	PSLGPYSP	CVLCTC	725	
Equus_caballus	YLDDVTLAS	ARPGGVP	ATWVESCT	CP	VGYGGQFC	EMCLSGYRRET	PSLGPYSP	CVLCTC	725	
Pteropus_alecto	YLDDVTLAS	ARPGGVP	ATWVEACT	CP	PAGYGGQFC	ETCLSGYRRET	PSLGPYSP	CVPCAC	690	
Mus_musculus	YLDDVTLQS	ARPGGVP	ATWVESCT	CP	VGYGGQFC	ETCLPGYRRET	PSLGPYSP	CVLCTC	724	
Ornithorhynchus_anatinus	YLDDVTVMS	ARPGGVP	ATWVESCT	CP	PAGYGGQFC	EHCI	PGYRRET	PSLGPYSP	CVLCTC	778
Rhinatrema_bivittatum	YLDDVTIVS	SARVPGT	ATWVESCT	CP	VGYLGQFC	ERCAPGYRRET	PALGSYSP	CVVCTC	715	
Xenopus_tropicalis	FLEEVSLV	TAVAGGPS	APWVEICS	CP	TGYIGQFC	ERCAPGYRREN	PSQGPYSP	CVLCTC	709	
Latimeria_chalumnae	HLDDVKILT	ARPHGTP	AHWVESCS	CP	PGYLGQFC	ERCAPGYRREIP	SGSFS	SPCVLCTC	628	
	.....730.....	740.....	750.....	760.....	770.....	780				

	****: *::*:.*:*.**** :*:*:::*:****: *	**::***** *****:.*:	
Pavo_muticus	NGHSETCDPETGVCDCRDNTAGSHCEKCS	SDGYYGDATA	766
Pavo_cristatus	NGHSETCDPETGVCDCRDNTAGSHCEKCS	SDGYYGDATA	766
Gallus_gallus	NGHSETCDPETGVCDCRDNTAGSHCEKCS	SDGYYGDATA	780
Anas_platyrhynchos	NGHSETCDPETGVCNCRDNTAGSHCEKCS	SDGYYGDATA	779
Chelonia_mydas	NGHSESCDPETGACDCRDNTAGLHCEKCS	SDGYYGDATA	771
Homo_sapiens	NGHSETCDPETGVCNCRDNTAGPHCEKCS	SDGYYGDATA	786
Pan_troglodytes	NGHSETCDPETGVCNCRDNTAGPHCEKCS	SDGYYGDATA	786
Macaca_mulatta	NGHSETCDPETGVCNCRDNTAGPHCEKCS	SDGYYGDATA	785
Callithrix_jacchus	NGHSEACDPETGVCNCRDNTAGPHCEKCS	SDGYYGDATA	785
Bos_taurus	NGHSETCDPESGVCNCRDNTAGPNCEKCS	SDGYYGDATA	785
Equus_caballus	NGHSETCDPETGVCNCRDNTAGPHCEKCS	SDGYYGDATA	785
Pteropus_alecto	NGHSETCDPETGVCNCRDNTAGPQCERCS	SDGYYGDATA	750
Mus_musculus	NGHSETCDPETGVCDCRDNTAGPHCEKCS	SDGYYGDATA	784
Ornithorhynchus_anatinus	NGHSESCNPETGVCNCRDNTAGPHCEKCS	SDGYYGDATA	838
Rhinatrema_bivittatum	NGHSNTCDPESGACDCDKNTAGLHCERC	SDGYYGDATA	775
Xenopus_tropicalis	NGHSDTCDPESGVCDCQHNTAGPHCERC	SDGYYGDATA	769
Latimeria_chalumnae	NGHSDVCNPETGVECRDNTAGPNCERC	ADGFYGDSTIGSSNDCKPC	688
	.....790.....800.....810.....820.....830.....840		

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Pavo_muticus	TKEVVCTSCQTGTTGKRCELDDAYFGDPLGENGAVRPCRLCQCNDNIDPNAVGNCNRQT	826
Pavo_cristatus	TKEVVCTSCQTGTTGKRCELDDAYFGDPLGENGAVRPCRLCQCNDNIDPNAVGNCNRQT	826
Gallus_gallus	TKEVVCTSCQTGTTGKRCELDDAYFGDPLGENGALRPCRLCQCNDNIDPNAVGNCNRQT	840
Anas_platyrhynchos	TREVVCTSCQAGTTGKRCELDDAYFGDPLGENGAVRPCRLCQCNDNIDPNAVGNCNRHT	839
Chelonia_mydas	TKEVVCTNCPTAGTTGKRCELDDGYFGDPLGENGPARLCRLCQCSNDIDPNAVGNCNRLT	831
Homo_sapiens	TKEVVCTNCPTGTTGKRCELDDGYFGDPLGRNGPVRLCRLCQCSNDIDPNAVGNCNRLT	846
Pan_troglodytes	TKEVVCTNCPTGTTGKRCELDDGYFGDPLGRNGPVRLCRLCQCSNDIDPNAVGNCNRLT	846
Macaca_mulatta	TKEVVCTNCPTGTTGKRCELDDGYFGDPLGRNGPVRLCRLCQCSNDIDPNAVGNCNRLT	845
Callithrix_jacchus	TKEVVCTNCPTGTTGKRCELDDGYFGDPLGRNGPVRLCRLCQCSNDIDPNAVGNCNRLT	845
Bos_taurus	TQEVVCTNCPTGTTGKRCELDDGHFGDPLGSNGPVRLCRLCQCSNDIDPNAVGNCNRLT	845
Equus_caballus	TQEVVCTNCPTGTTGKRCELDDGYFGDPLGRNGPVRLCRLCQCSNDIDPNAVGNCNRLT	845
Pteropus_alecto	TQEVVCTNCPTGTTGKRCELDDGYFGDPLGRNGPVRLCRLCQCSNDIDPNAVGNCNRLT	810
Mus_musculus	TKEVVCTHCPTGTAGKRCELDDGYFGDPLGSNGPVRLCRPCQCNDNIDPNAVGNCNRLT	844
Ornithorhynchus_anatinus	TKEVVCTNCPTGTTGKRCELDDGYFGDPLGETGPVRLCRHCQCSNDIDPNAVGNCNRLT	898
Rhinatrema_bivittatum	TKEVVCTNCPTAGTTGKRCELDDGYFGDPLGESGPRLCRPCHCNDNIDPNAVGNCNRLT	835
Xenopus_tropicalis	TKEVVCTNCPLGTTGKRCELDDGYFGDPLGENGAPRPCRICECSNNIDPNAVGNCNRLT	829
Latimeria_chalumnae	TKEVVCTNCPSGTTGKRCELDDGYFGDPLGKNGPAQPCRPCQCNDNIDPNAVGNCNRLT	748
	.....850.....860.....870.....880.....890.....900	

## CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /home/ceglab2/Desktop/ajinkya/pavo/MSDA/MSDA1.mxd Date Modified: Feb 15 15:45:20 2022

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	***** **.*:****:*.**:**.* * **.* *. **:*. **:.*: *.*: *****:	
Pavo_muticus	GECLKCIYNTAGFYCDRCKDGFFGNPLAPNPADKCRACHCNPYGTVNQQTSCNQVTGQCE	886
Pavo_cristatus	GECLKCIYNTAGFYCDRCKDGFFGNPLAPNPADKCRACHCNPYGTVNQQTSCNQVTGQCE	886
Gallus_gallus	GECLKCIYNTAGFYCDRCKDGFFGNPLATNPADKCRACHCNPYGTVNQQTSCNQVTGQCE	900
Anas_platyrhynchos	GECLKCIYNTAGFYCDRCKDGFFGNPLAPNPADKCRACHCNPYGTVNQQTSCNQVTGQCE	899
Chelonia_mydas	GECLKCIYNTAGFYCDRCKDGFFGNPLASNPEVKCKACSCNPYGTVNQQTSCNQVTGQCE	891
Homo_sapiens	GECLKCIYNTAGFYCDRCKDGFFGNPLAPNPADKCKACNCNLGYGTMKQQSSCNPVTGQCE	906
Pan_troglodytes	GECLKCIYNTAGFYCDRCKDGFFGNPLAPNPADKCKACNCNPYGTMKQQSSCNPVTGQCE	906
Macaca_mulatta	GECLKCIYNTAGFYCDRCKDGFFGNPLAPNPADKCKACSCNPYGTVKQQSNCNPVTGQCE	905
Callithrix_jacchus	GECLKCIYNTAGFYCDRCKDGFFGNPLAPNPADKCKACNCNPYGTVKQQSSCNPVTGQCE	905
Bos_taurus	GECLKCIYNTAGFYCDRCKDGFFGNPLAPNPADKCKACDCNPYGTVKQQSSCNPVTGQCE	905
Equus_caballus	GECLKCIYNTAGFYCDRCKEGFFGNPLAPNPADKCKACDCNPYGTVRQQSGCNPVTGQCE	905
Pteropus_alecto	GECLKCIYNTAGFYCDRCKNGFFGNPLAPNPADKCKACNCNPYGTMQQQSNCNPVTGQCE	870
Mus_musculus	GECLKCIYNTAGFYCDRCKEGFFGNPLAPNPADKCKACACNPYGTVQQQSSCNPVTGQCE	904
Ornithorhynchus_anatinus	GECLKCIYNTAGFYCDRCKDGFFGNPLAPDPADKCKACSCNPYGTVNQQTSCNQVTGQCE	958
Rhinatrema_bivittatum	GECLKCIILNTSGFYCDRCKDGFFGNALAAAPADKCKPCGCNPYGTVNRQTSCNQVTGQCE	895
Xenopus_tropicalis	GECLKCIYNTGGFYCDRCRDGFYGNPLAQNPDLKCRACSCNPYGTVKQQSGCNPVTGQCE	889
Latimeria_chalumnae	GECLKCIYNTAGFFCDRCKDGFYGNALAGDPADKCKPCNCSPYGTVDRTSCSOVTGQCE	808
	.....910.....920.....930.....940.....950.....960	

	*::*: **:*:**::** *:**::**:::***:***: *****:***:***:*	
Pavo_muticus	CLSHVTERDCSACEPGFFNLSGRGCERCDCCHALGSTSGQCDIWTGQCECPGVTGQRCD	946
Pavo_cristatus	CLSHVTERDCSACEPGFFNLSGRGCERCDCCHALGSTSGQCDIWTGQCECPGVTGQRCD	946
Gallus_gallus	CLSHVTERDCSACEPGFFNLSGRGCERCDCCHALGSTNGQCDIWTGQCECPGVTGQRCD	960
Anas_platyrhynchos	CLSHVTERDCSACEPGFFNLSGRGCERCDCCHALGSTNGQCDIRTGQCECPGVTGQRCD	959
Chelonia_mydas	CLPRVTERDCSACEPGFYNLQSGRGCDRCDCHPLGSTDGHCDIQTGQCECPGITGQHCK	951
Homo_sapiens	CLPHVTGQDCGACDPGFYNLSGQGCERCDCCHALGSTNGQCDIRTGQCECPGITGQHCE	966
Pan_troglodytes	CLPHVTGRDCGACDPGFYNLSGQGCERCDCCHALGSTNGQCDIRTGQCECPGITGQHCE	966
Macaca_mulatta	CLPHVTGRDCGACDPGFYNLSGQGCERCDCCHALGSTNGQCDIRTGQCECPGITGQHCE	965
Callithrix_jacchus	CLPHVTGRDCGACDPGFYNLSGQGCERCDCCHPLGSTNGQCDIRTGQCECPGITGQHCE	965
Bos_taurus	CLPHVTGRDCGACDPGFYNLSGQGCERCDCCHALGSTNGQCDVHSGQCECPGITGQHCE	965
Equus_caballus	CLPHVTGRDCGACDPGFYNLSGQGCERCDCCHALGSTNGQCDIRTGQCECPGITGQHCE	965
Pteropus_alecto	CLPHVTGRDCGSCDPGFYNLGGQGCERCDCCHALGSTNGQCDIRSGQCECPGITGQHCE	930
Mus_musculus	CLPHVSGRDCGTCDPGYNNLSGQGCERCDCCHALGSTNGQCDIRTGQCECPGITGQHCE	964
Ornithorhynchus_anatinus	CLPHVTERDCSACDPGFNLSGQGCERCDCCHALGSTNGQCDIRTGQCECPGITGQHCE	1018
Rhinatrema_bivittatum	CFPHVSETRDCGACEPGYNNLSGRGCERCDCCHALGSTSGQCDIQTGQCECPGITGQHCE	955
Xenopus_tropicalis	CLPHVTERDCSACEPGFYNNLSGRGCERCDCCHSLGSTSGQCDVRTGQCECHPGISGQQCC	949
Latimeria_chalumnae	CLPHVTSRDCSACEPGFYNNLSGRGCERCDCNSIGSTSGQCDIQTGQCECPGVTGQQCC	868
	.....970.....980.....990.....1000.....1010.....1020	

	** .***** *****. *** :***: :* * * :.**** *:***** * *	
Pavo_muticus	RCEANHFGFGGPEGCKPCDCDPEGSRALQCREDDRCECKEGFVGNRCDQCEENYFYNRSWP	1006
Pavo_cristatus	RCEANHFGFGGPEGCKPCDCDPEGSRALQCREDDRCECKEGFVGNRCDQCEENYFYNRSWP	1006
Gallus_gallus	RCEANHFGFGGPEGCKPCDCDPEGSRALQCREDDRCECKEGFVGNRCDQCEENYFYNRSWP	1020
Anas_platyrhynchos	RCEANHFGFGGPEGCKPCDCDPEGSRLQCREDDRCECKEGFVGRTRCDQCEENYFYNRSWP	1019
Chelonia_mydas	RCEVNHFHFGGPEGCKPCDCDTEGSRSLQCKEDGHCECKEGFVGSRCQCEENYFYNRSWP	1011
Homo_sapiens	RCEVNHFHFGGPEGCKPCDCHPEGSLSLQCKDDGRCECREGFVGNRCDQCEENYFYNRSWP	1026
Pan_troglodytes	RCEVNHFHFGGPEGCKPCDCHPEGSLSLQCKDDGLCECREGFVGNRCDQCEENYFYNRSWP	1026
Macaca_mulatta	RCEVNHFHFGGPEGCKPCDCHPEGSLSLQCKDDGRCECREGFVGNRCDQCEENYFYNRSWP	1025
Callithrix_jacchus	RCEVNHFHFGGPEGCKPCDCHPEGSLSLQCKDDGRCECREGFVGNRCDQCEENYFYNRSWP	1025
Bos_taurus	HCEVNHFHFGGPEGCKPCDCHPEGSLSLQCKDDGRCECREGFVGNRCDQCEENYFYNRSWP	1025
Equus_caballus	LCEVNHFHFGGHEGCKPCDCHPEGSLSLQCKDDGRCECKEGFVGNRCDQCEENYFYNRSWP	1025
Pteropus_alecto	RCEVNHFHFGGPEGCKPCDCHPEGSVSLQCKDDGRCECREGFVGNRCDQCEENYFYNRSWP	990
Mus_musculus	RCETNHFHFGGPEGCKPCDCHHEGSLSLQCKEDGRCECREGFVGNRCDQCEENYFYNRSWP	1024
Ornithorhynchus_anatinus	QCEVSHFGFGGPEGCKPCDCDPEGSLSLQCKDNGRCECKEGFVGNRCDQCEENYFYNRSWP	1078
Rhinatrema_bivittatum	RCEVNHFHFGGPEGCKPCDCDPEGSSSLQCKGDGRVCCKEGFVGHRCQCEENYFYNRSWP	1015
Xenopus_tropicalis	RCEPNHFHFGGPEGCKPCDCDPEGSGSLQCKEDGRCECKSGFVGRTRCDQCEENYFYNRSWP	1009
Latimeria_chalumnae	RCEINHFGFGLEGCKPCDCDPEGSRILQCKEDGRCECKEGFVGSRCQCEENYFYNRSWP	928
	.....1030.....1040.....1050.....1060.....1070.....1080	



# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /home/ceglab2/Desktop/ajinkya/pavo/MSData/MSData1661.fas 15 15:45:20 2022

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*****:::.*: * :.*.*.*.*: **::: :*:***:***:.*: : **
Pavo_muticus      GCQECPCACYRLVKDKVAEQERERLRELENLIANLGTGEETVTDQAFEERLKQAEKDVMDLL 1066
Pavo_cristatus    GCQECPCACYRLVKDKVAEQERERLRELENLIANLGTGEETVTDQAFEERLKQAEKDVMDLL 1066
Gallus_gallus     GCQECPCACYRLVKDKVAEQERERLRELENLIANLGTGEETITDQAFEERLKQAEKDVMDLL 1080
Anas_platyrhynchos GCQECPCACYRLVKDKVAEQERERLRELENLIANLGTGEETVTDQAFEERLKQAEKDVMDLL 1079
Chelonia_mydas    GCQECPCACYRLVRDKVAEQERERLRELENLIANLGTGDETVDQAFEDRLKEAERDVMDLL 1071
Homo_sapiens      GCQECPCACYRLVKDKVADHRVKLQELSLIANLGTGDEMVTQAFEDRLKEAERDVMDLL 1086
Pan_troglodytes   GCQECPCACYRLVKDKVADHRVKLQELSLIANLGTGDEMVTQAFEDRLKEAERDVMDLL 1086
Macaca_mulatta    GCQECPCACYRLVKDKVADHRVKLQELSLIANLGTGDEMVTQAFEDRLKEAERDVMDLL 1085
Callithrix_jacchus GCQECPCACYRLVKDKVADHRVKLQELSLIANLGTGDEMVTQAFEDRLKEAERDVMDLL 1085
Bos_taurus        GCQECPCACYRLVKDKVADHRVKLQELSLIANLGTGDEMVTQAFEDRLKEAERDVMDLL 1085
Equus_caballus    GCQECPCACYRLVKDKVADHRVKLQELSLIANLGTGDEMVTQAFEDRLKEAERDVMDLL 1085
Pteropus_alecto   GCQECPCACYRLVKDKVAEHRVKLQELSLIANLGTGDEVVTQAFEDRLKEAERDVMDLL 1050
Mus_musculus      GCQECPCACYRLVKDKVAEHRVKLQELSLIANLGTGDDMVTQAFEDRLKEAERDVMDLL 1084
Ornithorhynchus_anatinus GCQECPCACYRLVKDKVAEHRVKLQELSLIANLGTGDETVDQAFEDRLKEAERDVMDLL 1138
Rhinatrema_bivittatum GCQECPCACYRLVKDKVVDLQELSLIANLGTGDEVVTQAFEDRLKEAERDVMDLL 1075
Xenopus_tropicalis GCQECPCACYRLVKDKVNEQRGKLEELDLKLNLTGEENITDQAFEERLKEAERDVMDLL 1069
Latimeria_chalumnae GCQECPCAKLVKDKVVDHRQKLKELNLIANLGSQDTSVSKAFEERLKEAERAIMDLL 988
.....1090.....1100.....1110.....1120.....1130.....1140

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:*. * :. :*** .. *: ** *:: :*: * : * :
Pavo_muticus      REAQNPKDQGLMDRLRDINSTLSQSLRLNIONTVQETENLAEQARGVEDTEDLIA 1126
Pavo_cristatus    REAQNPKDQGLMDRLRDINSTLSQSLRLNIONTVQETENLAEQARGVEDTEDLIA 1126
Gallus_gallus     REAQNPKDQGLMDRLRDINSTLSQSLRLNIONTVQETENLAEQARGVEDTEDLIA 1140
Anas_platyrhynchos REAQNPKDQGLMDRLKDINSTLSQSLRLNIONTVQETEDLAQKARKRVEATEDLIT 1139
Chelonia_mydas    QDAQNSKDQGLMDRLKEINSTLSQSLRLNIONTVRETEGLAQARVEATEDLIE 1131
Homo_sapiens      REAQDVKDQGLMDRLQVRNNTLSSQISRLQIRNTIETGNLAEQARAHVENTERLIE 1146
Pan_troglodytes   REAQDVKDQGLMDRLQVRNNTLSSQISRLQIRNTIETGNLAEQARAHVENTERLIE 1146
Macaca_mulatta    REAQDVKDQGLMDRLQVRNNTLSSQISRLQIRNTIETGNLAEQARAHVENTERLIE 1145
Callithrix_jacchus REAQDVKDQGLMDRLQVRNNTLSSQISRLQIRNTIETGNLAEQARAHVENTERLIE 1145
Bos_taurus        REAQDVKDQGLMDRLQVRNNTLSSQISRLQIRNTIETGNLAEQARAHVENTERLIE 1145
Equus_caballus    REAQDVKDQGLMDRLQVRNNTLSSQISRLQIRNTIETGNLAEQARAHVENTERLIE 1145
Pteropus_alecto   REAQDVKDQGLMDRLQVRNNTLSSQISRLQIRNTIETGNLAEQARAHVENTERLIE 1110
Mus_musculus      REAQDVKDQGLMDRLQVRNNTLSSQISRLQIRNTIETGNLAEQARAHVENTERLIE 1144
Ornithorhynchus_anatinus REAQDVKDQGLMDRLQVRNNTLSSQISRLQIRNTIETGNLAEQARAHVENTERLIE 1195
Rhinatrema_bivittatum QDAQNSKDQGLMDRLQVRNNTLSSQISRLQIRNTIETGNLAEQARAHVENTERLIE 1135
Xenopus_tropicalis LDAQNSKDQGLMDRLQVRNNTLSSQISRLQIRNTIETGNLAEQARAHVENTERLIE 1129
Latimeria_chalumnae QDAQNSKDQGLMDRLQVRNNTLSSQISRLQIRNTIETGNLAEQARAHVENTERLIE 1048
.....1150.....1160.....1170.....1180.....1190.....1200

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:*** :*: * :. :***:***: * : * : *
Pavo_muticus      MASDMLKAKMAAGNVSIPTPESSGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1186
Pavo_cristatus    MASDMLKAKMAAGNVSIPTPESSGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1186
Gallus_gallus     MASDMLKAKMAAGNVSIPTPESSGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1200
Anas_platyrhynchos TASDMLKAKMAAGNVSIPTPESSGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1199
Chelonia_mydas    VASDMLKAKMAAGNVSIPTPESSGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1191
Homo_sapiens      IASRELEKAKMAAGNVSVTQPESTGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1206
Pan_troglodytes   IASRELEKAKMAAGNVSVTQPESTGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1206
Macaca_mulatta    IASRELEKAKMAAGNVSVTQPESTGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1205
Callithrix_jacchus IASRELEKAKMAAGNVSVTQPESTGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1205
Bos_taurus        IASRELEKAKMAAGNVSVTQPESTGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1205
Equus_caballus    IASRELEKAKMAAGNVSVTQPESTGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1205
Pteropus_alecto   IASRELEKAKMAAGNVSVTQPESTGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1170
Mus_musculus      IASRELEKAKMAAGNVSVTQPESTGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1204
Ornithorhynchus_anatinus KR---KAKMAAGNVSVTQPESTGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1251
Rhinatrema_bivittatum IASRELEKAKMAAGNVSVTQPESTGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1195
Xenopus_tropicalis SARVLEKAKMAAGNVSVTQPESTGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1189
Latimeria_chalumnae RAQKELEKAKMAAGNVSVTQPESTGDPNNMTLLAEAEARRLAERHKQEADEIVRIKAAND 1108
.....1210.....1220.....1230.....1240.....1250.....1260

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## CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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	*: .: *:***.**.* *.:**:* ::::~::~:**~*: *	
Pavo_muticus	TST EAYQLLLKTL AGENQTARGID ELNQKY NQARNIS RDLER QASRVLEEAE EAGNKALQ	1246
Pavo_cristatus	TST EAYQLLLKTL AGENQTARDID ELNQKY NQARNIS RDLER QASRVLEEAE EAGNKALQ	1246
Gallus_gallus	TST EVYQLLLKTL AGENQTARDID ELNQKY NQARNIS RDLER QANRVLEEAE EAGNKALQ	1260
Anas_platyrhynchos	TST EAYQLLLKTL AGENQNTANDID ELNQKY NQARNIS RDLEK QADKVLTEAE EAGNKALQ	1259
Chelonia_mydas	TST EAYTLLLKTL AGENQTASDID ELNRKY NQAKNIS RDLEK QANKVHAEAE EAGNKALQ	1251
Homo_sapiens	TST EAYNLLLRL TLAGENQTA FEIEEL NRKYE QAKNIS QDLEK QAARVHEE AKRAGDKAVE	1266
Pan_troglodytes	TST EAYNLLLRL TLAGENQTA FEIEEL NRKYE QAKNIS QDLEK QAARVHEE AKRAGDKAVE	1266
Macaca_mulatta	TST EAYNLLLRL TLAGENQTA FEIEEL NRKYE QAKNIS QDLEK QAARVHEE AKRAGDKAVE	1265
Callithrix_jacchus	TST EAYNLLLRL TLAGENQTA SEIEEL NRKYE QAKNIS RDLEK QAARVHEE AKRAGDKAVE	1265
Bos_taurus	TS AEAYNLLLRL TLAGENQTA SEIEEL NRKYE QAKNIS QDLEK QAARVHEE AKRAGDKAVE	1265
Equus caballus	TST EAYNLLLRL TLAGENQTA FEIEEL NRKYE QAKNIS EDLEK QASRVHEE AKRAGDKAVE	1265
Pteropus_alecto	TST EAYNLLLKTL AGENQTA FEIEEL NRKYE QAKNIS QDLEK QAQVHEE AKRAGDKAVE	1230
Mus_musculus	TS AEAYNLLLRL TLAGENQTA LEIEEL NRKYE QAKNIS QDLEK QAARVHEE AKRAGDKAVE	1264
Ornithorhynchus_anatinus	TS SEAYNM LRL TLAGENET ANEI KE LNRYE QT KNIS QDLEQAAT RVHDEA KKAGDKAVE	1311
Rhinatrema_bivittatum	TST EALKLLLKTL ADENRTASE ID ELNKKY NQAKNIS RDLEK QANKVHAEAE EAGTKALQ	1255
Xenopus_tropicalis	TANE AL RLLQKT LA SENQ TALDI EE LN RKYA QAK DIARE LEK QASKVHAEAE EAGN RALQ	1249
Latimeria_chalumnae	TST KAYDLLQRTL AGENKLAN DIEL LNRRY DEAKNMAKDLEK QANKVHAEAE EAGDKALQ	1168
	.....1270.....1280.....1290.....1300.....1310.....1320	

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Pavo_muticus	IYANLTNLPTVDITMGLSEANKIKKEAEELDQLIARKLKDYEDLREDMGKGELEVKNLLE	1306
Pavo_cristatus	IYANLTNLPTVDITMGLSEANKIKKEAEELDQLIARKLKDYEDLREDMGKGELEVKNLLE	1306
Gallus_gallus	IYANLTNLPTVDITMGLSEANKIKKEAEELDQLIARKLKDYEDLREDMGKGELEVKNLLE	1320
Anas_platyrhynchos	IYANLTSLPTVDTSTGLEANEANKIKKEAEELDQLIARKLKDYEDLREDMGKGELEVKNLLE	1319
Chelonia_mydas	IYANLTSLPAVDSKGLEANEANKIKKEAEELDQLIDRKLMDYEDLREDMGKGELEVKNLLE	1311
Homo_sapiens	IYASVAQLSPLDSETLEANEANNIKMEAENLEQLIDQKCLKDYEDLREDMRGKGELEVKNLLE	1326
Pan_troglodytes	IYASVAQLSPLDSETLEANEANNIKMEAENLEHLIDQKCLKDYEDLREDMRGKGELEVKNLLE	1326
Macaca_mulatta	IYASVAQLSPLDSETLEANEANNIKMEAENLERLIDQKCLKDYEDLREDMRGKGELEVKNLLE	1325
Callithrix_jacchus	IYASVAQLSPVDSETLEANEANNIKMEAENLERLIDQKCLKDYEDLREDMRGKGELEVKNLLE	1325
Bos_taurus	IYASVAQLTPVDSEALENEANKIKKEAEDLRLIDQKCLKDYEDLRDDMRGKEFEVKKLLE	1325
Equus_caballus	IYASVAQLTPVDSEALENEANKIKKEAEDLRLIDQKCLKDYEDLREDMRGKGELEVKNLLE	1325
Pteropus_alecto	IYASVAQLTPVDSEALENEANKIKKEAEDLRLIDQKCLKDYEDLREDMRGKGELEVKNLLE	1290
Mus_musculus	IYASVAQLTPVDSEALENEANKIKKEAADLRLIDQKCLKDYEDLREDMRGKEHEVKNLLE	1324
Ornithorhynchus_anatinus	IYASVAQLTPVDSVALENEANKIKKEAKDLQLIDRKLKDYEDLREDMGKGELEVKNLLE	1371
Rhinatrema_bivittatum	IYANITSLPAVDITKVLNEANKIKKEAEDLQLINRKLKDYDDLRLDDMRGKGELEVKNLLD	1315
Xenopus_tropicalis	IYANLTSVPSIDITLALONEADKIQKEAEELDSLIDRKLRLDYEDLREDMRGREMEVKNLLD	1309
Latimeria_chalumnae	IYANLTTLPRVETKTLESEANKIKQEADELRLIDKRKQYDDLRLNDLGKEIEVKNLLE	1228
	.....1330.....1340.....1350.....1360.....1370.....1380	

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Pavo_muticus	KGKTEQQTADQLLARADAAKALAEAAARKGNGLQEANTILSNLKDFDKRVNDNKTAEE	1366
Pavo_cristatus	KGKTEQQTADQLLARADAAKALAEAAARKGNGLQEANTILSNLKDFDKRVNDNKTAEE	1366
Gallus_gallus	KGKTEQQTADQLLARADAAKALAEAAARKGNGLQEANTILSNLKDFDKRVNDNKTAEE	1380
Anas_platyrhynchos	KGKTEQQTADQLLARADAAKALAEAAARKGNGLQEANTILSNLKDFDKRVNDNKTAEE	1379
Chelonia_mydas	KGRTEQQTADQLLARADAAKALAEAAKKGRETLEEANDILSNLRDFDKRVNDNKTAEE	1371
Homo_sapiens	KGKTEQQTADQLLARADAAKALAEAAKKGRDITLQEANDILNNLKDFDRRVNDNKTAEE	1386
Pan_troglodytes	KGKTEQQTADQLLARADAAKALAEAAKKGRDITLQEANDILNNLKDFDRRVNDNKTAEE	1386
Macaca_mulatta	KGKTEQQTADQLLARADAAKALAEAAKKGRDITLQEANDILNNLKDFDRRVNDNKTAEE	1385
Callithrix_jacchus	KGKTEQQTADQLLARADAAKALAEAAKKGRNTLQEANDILNNLKDFDRRVNDNKTAEE	1385
Bos_taurus	KGKTEQQTADQLLARADAAKALAEAAEKGRNTLQEANDILNNLKDFDRRVNDNKTAEE	1385
Equus_caballus	KGKTEQQTADQLLARADAAKALAEAAKKGRNTLQEANDILNNLKDFDRRVNDNKTAEE	1385
Pteropus_alecto	KGKTEQQTADQLLARADAAKALAEAAKKGRNTLQEANDILNNLKDFDRRVNDNKTAEE	1350
Mus_musculus	KGKAEQQTADQLLARADAAKALAEAAKKGRSTLQEANDILNNLKDFDRRVNDNKTAEE	1384
Ornithorhynchus_anatinus	KGKTEQQTADQLLARADAAKALAEAAKKGKNTLQEANDILNNLKDFDRRVNDNKTAEE	1431
Rhinatrema_bivittatum	KGKTEQQTADQLLARADAAKALAEAAARKGRATLQEANDILNNLRDFDKRVNDNKTAEE	1375
Xenopus_tropicalis	KGKTEQQTADQLLARADAAKAQAEAAKKGRETTLQEANDILNKLRFDFKRVNDNKTAEE	1369
Latimeria_chalumnae	KGKTEQQTADQLLARADAAKALAEAAKKGRNTLQEANDILNNLRDFDKRVNDNKTAEE	1288
	.....1390.....1400.....1410.....1420.....1430.....1440	



## CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /home/ceglab2/Desktop/ajinkya/pavo/MSDA/MSDA.m Date Modified: Feb 15 15:45:20 2022

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	** : ** * : ** : ** : ** : * . *** . * ** * : : * : ** : * . : ** . * : : :	
Pavo_muticus	ALKKIPAITQTIAEANNKTRQAEALALGNAAADAREAKTRADDAEKIASAVOKSAAATRAE	1426
Pavo_cristatus	ALKKIPAITQTIAEANNKTRQAEALALGNAAADAREAKTRADDAEKIASAVOKSAAATRAE	1426
Gallus_gallus	ALKKIPAITQTIAEANNKTRQAEALALGNAAADAREAKTRADDAEKIASAVOKSAAATRAE	1440
Anas_platyrhynchos	ALKKIPAITRTIAEANNKTRQAEALALGNAAADAREAKAKADDAEKIASVOKSAAATRAE	1439
Chelonia_mydas	ALKKIPAITRTIAEANNKTRQAEALALGNAADAREAKNKADDAEKIANSVOKNAASTKSE	1431
Homo_sapiens	ALRKIPAINQTITIEANEKTRQAQALGSAAADATEAKNKAHEAERIASAVOKNATSTKAE	1446
Pan_troglodytes	ALRKIPAINQTITIEANEKTRQAQALGNAAADATEAKNKAHEAERIASAVOKNATSTKAE	1446
Macaca_mulatta	ALRKIPAINQTITIEANEKTRQAQALGNAAADATEAKNKAHEAERIASAVOKNATSTKAE	1445
Callithrix_jacchus	ALRKIPAINQTITIEANEKTRDAQALGNAAADATEAKNKAHEAERIASAIQKATSTKAE	1445
Bos_taurus	ALRRIPAINQTITIEANEKTRQAQALGNAAADATEARNKAHEAERIASAVOKNATSTKAE	1445
Equus_caballus	ALRRIPAINQTITIEANEKTRQAQALGNAAADATEAKNKAHEAERIASAVOKNATSTKAE	1445
Pteropus_alecto	ALKRIPAINRTIAEANEKTEARLALGNAAADATEAKAHEAERIASAVOKNATSTKAE	1410
Mus_musculus	ALRRIPAINRTIAEANEKTRQAQALGNAAADATEAKNKAHEAERIASAVOKNATSTKAD	1444
Ornithorhynchus_anatinus	ALKRIPAINQTIAEANEKTKAHMALGNAAADATEAKNKAHEAEKIASVVKANSTKAE	1491
Rhinatrema_bivittatum	ALKKIPAITQTITILDANNKTRQAEQALGNAAADAREAKNKAEEAEKIASAVOKNATKTKSD	1435
Xenopus_tropicalis	ALRKIPMIAQTIAEANNKTRQAESALGNANADARGAKSKAAEEAALNTVKKAAATRAE	1429
Latimeria_chalumnae	ALSKIPAINQTITIEANDKTKQAEALGNAADDARDAKKKADEAEKIATSVOKNAAKTKSE	1348
	.....1450.....1460.....1470.....1480.....1490.....1500	

[illegible]

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Pavo_muticus	KNSVNSLLAVINDLLDQLGQLETVDLNLKLNIEEGTLNSAKDQMKDSLDLQKVAFLEREAR	1546
Pavo_cristatus	KNSVNSLLAVINDLLDQLGQLETVDLNLKLNIEEGTLNSAKDQMKDSLDLQKVAFLEREAR	1546
Gallus_gallus	KNSVNSLLAVINDLLDQLGQLETVDLNLKLNIEEGTLNSAKDQMKDSLDLQKVAFLEREAR	1560
Anas_platyrhynchos	KNSVNSLLTIVINDLLDQLGQLETVDLNLKLNIEEGTLNSAKDQMRNSNDLDQKVSLLEREAR	1559
Chelonia_mydas	KNSVNSLLTIVNDLLGQLGQDPVDLNLKLNIEEGTLNTAKDQMKDSLDLDRKVTLEDAAR	1551
Homo_sapiens	KNSVTSLLSIINDLLEQLGQLDTPVDLNLKLNIEEGTLNKAKDEMKVSDLDRKVSDLNEAK	1566
Pan_troglodytes	KNSVTSLLSIINDLLEQLGQLDTPVDLNLKLNIEEGTLNKAKDEMKVSDLDRKVSDLNEAK	1566
Macaca_mulatta	KNSVTSLLSIINDLLEQLGQLDTPVDLNLKLNIEEGTLNKAKDEMKVSDLDRKVSDLNEAK	1565
Callithrix_jacchus	KNSVTSLLNIINDLLEQLGQLDTPVDLNLKLNIEEGTLNKAKDEMKVSDLDRKVSDLNEAK	1565
Bos_taurus	KNSVTNLLNLINDLLEQLGQLDTPVDLNLKLNIEEGTLNKAKEEMKVSDLDRKVSNLNEAR	1565
Equus_caballus	KNSATSLLNLINDLLEQLGQLDTPVDLNLKLNIEEGTLNKAKDEMKVSDLDRKVSDLNEAK	1565
Pteropus_alecto	KNSVTSLLSLINDLLEQLGQLDTPVDLNLKLNIEEGTLNKADEMKVSDLDRKVSDLNEAK	1530
Mus_musculus	KNSVSSLLSQLNLLDQLGQLDTPVDLNLKLNIEEGSLNKADEMKASDLDRKVSDLSEAR	1564
Ornithorhynchus_anatinus	KTSVGNLLTTINSLLLEQLGQLDTPVDLNLKLNIEEGTLNQAKEEMTVSDLDRKVADLESEAK	1611
Rhinatrema_bivittatum	KNSVNSVLNIINDLLGQLGQLSPVDLNLKLTIEIEDTLNAAKKQMKDSLDLGGKVAKLEKEAK	1555
Xenopus_tropicalis	KKSVMGVLATIDELLSRLGQLSDVDVGQLTVLEKTLDDAKNQLRDSLDLDRKLAELQESN	1549
Latimeria_chalumnae	KNSVSSVLNVINDLLDQLGKLDTPVDLNLKLDIENTLNWAKDQMKDNDLDSKLSNLEKMAC	1468
	.....1570.....1580.....1590.....1600.....1610.....1620	

## CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

**File:** /home/ceglab2/Desktop/ajinkya/pavo/MSDA/Model\_Feb  
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	* KODDAIQSYNRDIEEILKDISNLEDIRKTLPSGCFNTPSIEKP	1589
Pavo_muticus	KODDAIQSYNRDIEEILKDISNLEDIRKTLPSGCFNTPSIEKP	1589
Pavo_cristatus	KODDAIQSYNRDIEEILKDISNLEDIRKTLPSGCFNTPSIEKP	1603
Gallus_gallus	KODDAIQAYNRDIEEILKDISNLEDIKKTLPSGCFNTPSIEKP	1602
Anas_platyrhynchos	RDEAIIQAYNRDIEDILKDIINNLEDIKKTLPSGCFNTPSIEKP	1594
Chelonia_mydas	KQEAAIMDYNRDIEEIMKDIRNLEDIRKTLPSGCFNTPSIEKP	1609
Homo_sapiens	KQEAAIMDYNRDIEEIMKDIRNLEDIRKTLPSGCFNTPSIEKP	1609
Pan_troglodytes	KQEAAIMDYNRDIEEIMKDIRNLEDIRKTLPSGCFNTPSIEKP	1608
Macaca_mulatta	KQEAAIMDYNRDIEEIMKDIHNLEDIRKTLPSGCFNTPSIEKP	1608
Callithrix_jacchus	KQEAAIMDYNRDIEEILKDIRNLEDIKKTLPSGCFNTPSIEKP	1608
Bos_taurus	KQEAAIMDYNRDIEEIMKDIRNLEDIKKTLPSGCFNTPSIEKP	1608
Equus_caballus	KQEAAIMDYNRDIEEIMKDIRNLEDIRKTLPSGCFNTPSIEKP	1573
Pteropus_alecto	KQEAAIMDYNRDIAEIIKDIHNLEDIKKTLPTGCFNTPSIEKP	1607
Mus_musculus	KQEAATVDYNRDIEEILKDIRNLEDIKKTLPSGCFNTPSIEKP	1654
Ornithorhynchus_anatinus	LQDDSIQAYQRDINDIISKDISNLEDIKKTLVPVGCNTPSIEKP	1598
Rhinatrema_bivittatum	LQRVALDSYSRDIDQILRDIANLEDIKNTLPAGCYNTPSIEKP	1592
Xenopus_tropicalis	QODDTINNYKKDISDIKDIINNLEDIKKTLPPGCYNTPSIEKP	1511
Latimeria_chalumnae	.....1630.....1640.....1650.....1660...	