

File: /media/morpheus/disk1/fst/pep_msa/KDE162.fst Tue Feb 1 12:30:40 2022
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Pavo_muticus	-----MGSRGCA-LLLLG-AALPLIGS-----AAVSPEQSLAWGPGLEAGLALPVRYFY	47
Pavo_cristatus	-----MGSRGCA-LLLLG-AALPLIGS-----AAVSPEQSLAWGPGLEAGLALPVRYFY	47
Gallus_gallus	-----MGSRGCALLLLG-AALPLIGS-----AAVSPERSLWVGPGLEAGLALPVRYFY	48
Mus_musculus	-----MQALPLG-LQALLVAAGAG-ARVSAPRSLAWGPGLOAAAVLPVRYFY	46
Rattus_norvegicus	-----MLGVRRALLLPPLQALLVAAGTG-ARVSAPRSLAWGPGHLHADAVLPVRYFY	51
Homo_sapiens	-----MRRLPRALLLQ-LRLALLVAAGAPEVLVSAPRSLWVGPGLOAAAVLPVRYFY	51
Pan_troglodytes	-----MRRLPRALLLQ-LRLALLVAAGAPEVLVSAPRSLWVGPGLOAAAVLPVRYFY	51
Macaca_mulatta	-----MRSILPWALLLQ-LRLALLVAAGAPEVLVSAPRSLWVGPGLOAAAVLPVRYFY	51
Callithrix_jacchus	-----MRRLPRALLLQ-LRLALLVAAGAPEAPVSAPRSLWVGPGLOAAAVLPVRYFY	50
Equus_caballus	-----MRRLPRALLLP-LPLALLVAAGAPEAPVSAPRSLWVGPGLOAAAVLPVRYFY	51
Canis_lupus_familiaris	-----MRRLPRAALLP-LPLALLVAAGAPEPPVSAPRSLAWGPGLRAGVVLVRYFY	51
Xenopus_tropicalis	MG----RTRPFFGAALLLLLAWASPG-AAGGSAETLSPEERSLWVGPGHPDIVLPVRYFY	55
Rhinatrema_bivittatum	MGGSVLCCSPFPLLLFLPTAPFPFPAIGAEEPIAEKSLWVGPGLRAEIVLPVRYFY	60
	1.....10.....20.....30.....40.....50.....60	
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Pavo_muticus	IQAVSATGRNFSRSPPGRTQFKVVIKALSPKEITRIYTPHPLDRNDGTFLMRYRMYGGSVR	107
Pavo_cristatus	IQAVSATGRNFSRSPPGRTQFKVVIKALSPKEITRIYTPHPLDRNDGTFLMRYRMYGGSVR	107
Gallus_gallus	IQAVSATGRNFSRSPPGRTQFKVVIKALSPKEITRIYTPHPLDRNDGTFLMRYRMYGGSVR	108
Mus_musculus	LQVSDSDGRNFTSSPPGQTQFKVVVKSLSPKELVRIYVHPKPLDRNDGTFLVRYRMHETAH	106
Rattus_norvegicus	LQVSDSDGRNFTSSPPGQTQFKVVVKSLSPKELVRIYVHPKPLDRNDGTFLVRYRMHETVH	111
Homo_sapiens	LQAVNSEGNLTRSPAGETPFKVVVKSLSPKELVRIHVPKPLDRNDGTFLMRYRMYETVD	111
Pan_troglodytes	LQAVNSEGNLTRSPAGETPFKVVVKSLSPKELVRIHVPKPLDRNDGTFLMRYRMYETVD	111
Macaca_mulatta	LQAVNSEGNLTRSPPGQTQFKVVVKSLSPKELVRIHVPKPLDRNDGTFLMRYRMYETVN	111
Callithrix_jacchus	LQAVTSDGNFTRAPPQTQFKVVVKSLSPKELVRIHVPKPLDRNDGTFLVRYRMYETVN	110
Equus_caballus	LQAVTSEGNLTRSPPGQTQFKVVVKSLSPKELVRIHVPKPLDRNDGTFLMRYRMYETVN	111
Canis_lupus_familiaris	LQAVNSEGNLTRSPADQTLFRVVIKSLSPKELVRIHVPKPLDRNDGTFLVRYRIYDITS	111
Xenopus_tropicalis	IQAVTAGGRNFTTSP-GKRAFRVVIKSLA-KEFVRIHVPDPLDRNDGSLVRYRMYGTGN	113
Rhinatrema_bivittatum	IQAVSAEGHNVTTRSP-GNTAFKVIKAVSTKEFIRIHAPDPLDRNDGSLMRYRMYGTVR	119
70.....80.....90.....100.....110.....120	
	** **.*.* : *.*.*.* ** **.*.* ** **.*.* ** **.*.*	
Pavo_muticus	KGLKIEILYGDKHVAQSPYILKGPVYHEYCDCEEDPEIWQNVFSCPSQEPQITKDFISF	167
Pavo_cristatus	KGLKIEILYGDKHVAQSPYILKGPVYHEYCDCEEDPEIWQNVFSCPSQEPQITKDFISF	167
Gallus_gallus	KGLKIEILYGDKHVAQSPYILKGPVYHEYCDCEEDPEIWQNVFSCPSQEPQITKDFISF	168
Mus_musculus	KGLKIEILHGSEHVAHSPYILKGPVYHEYCDCEEDDPOAWQETLSCPAEPQIEQDFVSF	166
Rattus_norvegicus	EGLKIEILYGGEHVAQSPYILKGPVYHEYCDCEEDDPOAWQETLSCPAEPQIEQDFISF	171
Homo_sapiens	EGLKIEVLYGDEHVAQSPYILKGPVYHEYCECPE-DPOAWQETLSCPTKEPQIAKDFASF	170
Pan_troglodytes	EGLKIEVLYGDEHVAQSPYILKGPVYHEYCECPE-DPOAWQETLSCPTKEPQIAKDFASF	170
Macaca_mulatta	EGLKIEVLYGDEHVAQSPYILKGPVYHEYCECPE-DPOAWQETLSCPTKEPQIAKDFASF	170
Callithrix_jacchus	AGLKIEVLYGDEHVAQSPYILKGPVYHEYCECPE-NPOAWQETLSCPTKEPQIAKDFASF	169
Equus_caballus	EGLKIEVLYGDEHVAQSPYILKGPVYHEYCECPEEDDPOAWQETLSCPTKEPQIAKDFASF	171
Canis_lupus_familiaris	AGLKIEVLYGDEHVAQSPYILKGPVYHEYCECPEEDDPOAWQETLSCPTKEPQIAKDFASF	171
Xenopus_tropicalis	QGLMIEVLHGDKHVAQSPYTLKGPVYHEYCDCEEDDPOAWQETLSCPDTEAQISKDFDPF	173
Rhinatrema_bivittatum	KGLMIEVLHGDKHVAQSPYILKGPVYHEYCDCEEDDPOAWQETLSCPTKEPQITKDFESF	179
130.....140.....150.....160.....170.....180	
	..* : * .. *.*.*.* : * : *.*.*.*.* : * : *	
Pavo_muticus	PTIDLQRMFKEIPSKFSQTRGAIVHYTILNNRIYRRSLGKYTDFKMFSDDEMLLSLAR---	224
Pavo_cristatus	PTIDLQRMFKEIPSKFSQTRGAIVHYTILNNRIYRRSLGKYTDFKMFSDDEMLLSLAR---	224
Gallus_gallus	PTIDLQRMFKEIPSKFSQTRGAIVHYTILNNRIYRRSLGKYTDFKMFSDDEMLLSLAR---	225
Mus_musculus	PSINLQOMLKEVPTFRGDERGAIVHYTILNNRIYRRSLGKYTDFKMFSDDEMLLSLAR---	223
Rattus_norvegicus	PSINLQOMLKEVPTFRGDERGAIVHYTILNNRIYRRSLGKYTDFKMFSDDEMLLSLAR---	228
Homo_sapiens	PSINLQOMLKEVPTFRGDERGAIVHYTILNNRIYRRSLGKYTDFKMFSDDEMLLSLAR---	227
Pan_troglodytes	PSINLQOMLKEVPTFRGDERGAIVHYTILNNRIYRRSLGKYTDFKMFSDDEMLLSLAR---	227
Macaca_mulatta	PSINLQOMLNEVPKRFGDERGAIVHYTILNNRIYRRSLGKYTDFKMFSDDEMLLSLAR---	227
Callithrix_jacchus	PSINLQOMLNEVPKRFGDERGAIVHYTILNNRIYRRSLGKYTDFKMFSDDEMLLSLAR---	226
Equus_caballus	PSINLQOMLNEVPKRFGDERGAIVHYTILNNRIYRRSLGKYTDFKMFSDDEMLLSLAR---	228
Canis_lupus_familiaris	PSINLQOMLNEVPKRFGDERGAIVHYTILNNRIYRRSLGKYTDFKMFSDDEMLLSLAR---	231
Xenopus_tropicalis	PSIDLTRMLDEVPKRFAD-RGAIVHYTILNNRIYRRSLGKYTDFKMFSDDEMLLSLAR---	229
Rhinatrema_bivittatum	PSIDLQRMSEVPKRFAGKRAIVHYTILNNRIYRRSLGKYTDFKMFSDDEMLLSLAR---	236
190.....200.....210.....220.....230.....240	

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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** *:****:*****:***.* **.*:***** *****:*****:
Pavo_muticus      -----KVHLPNVEFYLNVDWVPEYRKANDTPGPIPIISWCGSVDSRDIVLPTYDIT 276
Pavo_cristatus    -----KVHLPNVEFYLNVDWVPEYRKANDTPGPIPIISWCGSVDSRDIVLPTYDIT 276
Gallus_gallus     -----KVHLPNVEFYLNVDWVPEYRKVNDTPGPIPIISWCGSVDSRDIVLPTYDVT 277
Mus_musculus      -----KVTLPLDFEYINLGDWPLEHRKVNDTPGPIPIISWCGSLDSRDIIILPTYDVT 275
Rattus_norvegicus -----KVTLPLDFEYINLGDWPLEHRKVNDTPGPIPIISWCGSLDSRDIIILPTYDVT 280
Homo_sapiens      -----KVLLPDLEFYVNLGDWPLEHRKVNGTPSPIPIISWCGSLDSRDVVLPPTYDIT 279
Pan_troglodytes   -----KVLLPDLEFYVNLGDWPLEHRKVNGTPSPIPIISWCGSLDSRDVVLPPTYDIT 279
Macaca_mulatta    -----KVLLPDLEFYVNLGDWPLEHRKVNGTPSPIPIISWCGSLDSRDVVLPPTYDIT 278
Callithrix_jacchus -----KVLLPDLEFYVNLGDWPLEHRKVNGTPSPIPIISWCGSLDSRDIVLPTYDIT 278
Equus_caballus    -----KVLLPDLEFYVNLGDWPLEHRKVNETPGPLPIISWCGSLDSRDVILPTYDIT 280
Canis_lupus_familiaris CPVAGKSKVLLPDIEFYINLGDWPLEHRKVNETPGPLPIISWCGSLDSRDIIILPTYDIT 291
Xenopus_tropicalis -----KVRLPDFEFYINVGDWVPEHRKANATPGPLPMISWCGSADSRDIIILPTYDIT 281
Rhinatrema_bivittatum -----KVHLPDFEFYINVGDWVPEHRKVNETPGPLPIISWCGSADSRDIIILPTYDIS 288
.....250.....260.....270.....280.....290.....300

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Pavo_muticus      HSTLETLRGVTDNLLSIQGNTPGFWDNKTEQALFRGRDSREERLHLVKLSKENPELLDAG 336
Pavo_cristatus    HSTLETLRGVTDNLLSIQGNTPGFWDNKTEQALFRGRDSREERLHLVKLSKENPELLDAG 336
Gallus_gallus     HSTLETLRGVTDNLLSIQGNTPGFWDNKTEQALFRGRDSREERLYLVKLSKENPELLDAG 337
Mus_musculus      HSTLEAMRGVTDNLLSVQGNTPGSWINKTEKAFFRGRDSREERLQVLVLSKENPOLLDA 335
Rattus_norvegicus HSTLEAMRGVTDNLLSVQGNTPGSWINKTEKAFFRGRDSREERLQVLVLSKENPOLLDA 340
Homo_sapiens      HSMLEAMRGVTDNLLSIQGNTPGSWINKTERAFFRGRDSREERLQVLVLSKENPOLLDA 339
Pan_troglodytes   HSMLEAMRGVTDNLLSIQGNTPGSWINKTERAFFRGRDSREERLQVLVLSKENPOLLDA 339
Macaca_mulatta    HSTLEAMRGVTDNLLSIQGNTPGSWINKTERAFFRGRDSREERLQVLVLSKENPOLLDA 339
Callithrix_jacchus HSTLEAMRGVTDNLLSIQGNTPGSWINKTERAFFRGRDSREERLQVLVLSQKNPOLLDA 338
Equus_caballus    HSTLEAMRGVTDNLLSIQGNTPGSWINKTEKAFFRGRDSREERLQVLVLAKENPOLLDA 340
Canis_lupus_familiaris HSTLEAMRGVTDNLLSIQGNTPGSWINKTEKAFFRGRDSREERLQVLVLSKENPELLDAG 351
Xenopus_tropicalis HSTLETLRGVTDNLLSIQGNTPGSWSNKTEQFFRGRDSREERLQVLVHMSRKHPPELLDAG 341
Rhinatrema_bivittatum HSTLETLRGVTDNLLSIQGNTPGWNNKTEQAFRGRDSREERLQVLVLSKKNPDLLDAG 348
.....310.....320.....330.....340.....350.....360

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Pavo_muticus      ITGYFFFREKEKELGKVPMLMGFFDFFKYKYQVNVDTVAAYRFPYLLLGDSLVLKQDSQY 396
Pavo_cristatus    ITGYFFFREKEKELGKVPMLMGFFDFFKYKYQVNVDTVAAYRFPYLLLGDSLVLKQDSQY 396
Gallus_gallus     ITGYFFFREKEKELGKVPMLMGFFDFFKYKYQVNVDTVAAYRFPYLLLGDSLVLKQDSQY 397
Mus_musculus      ITGYFFFREKEKELGKAKLMGFFDFFKYKYQVNVDTVAAYRFPYMLMGDSLVLKQDESPY 395
Rattus_norvegicus ITGYFFFREKEKELGKAKLMGFFDFFKYKYQVNVDTVAAYRFPYMLMGDSLVLKQDESPY 400
Homo_sapiens      ITGYFFFREKEKELGKAKLMGFFDFFKYKYQVNVDTVAAYRFPYMLMGDSLVLKQDSPY 399
Pan_troglodytes   ITGYFFFREKEKELGKAKLMGFFDFFKYKYQVNVDTVAAYRFPYMLMGDSLVLKQDSPY 399
Macaca_mulatta    ITGYFFFREKEKELGKAKLMGFFDFFKYKYQVNVDTVAAYRFPYMLMGDSLVLKQDSPY 399
Callithrix_jacchus ITGYFFFREKEKELGKAKLMGFFDFFKYKYQVNVDTVAAYRFPYMLMGDSLVLKQDSPY 398
Equus_caballus    ITGYFFFREKEKELGKAKLIGFFDFFKYKYQVNVDTVAAYRFPYMLMGDSLVLKQDSPY 400
Canis_lupus_familiaris ITGYFFFREKEKELGKAKLIGFFDFFKYKYQVNVDTVAAYRFPYMLMGDSLVLKQDSKY 411
Xenopus_tropicalis ITGYFFFRELEELGKASLIGFFDFFNYKYQVNVDTVAAYRFPYMLMGDSLVLKQDSPY 401
Rhinatrema_bivittatum ITGYFFFREKEVELGKASLIGFFDFFKYKYQVNVDTVAAYRFPYMLMGDSLVLKQDSPY 408
.....370.....380.....390.....400.....410.....420

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Pavo_muticus      YEHFYTVLKPWKHYVPVKRSLDLEKIKWAKENDEEAQKIAKEGQSVARELLOPHRLYC 456
Pavo_cristatus    YEHFYTVLKPWKHYVPVKRSLDLEKIKWAKENDEEAQKIAKEGQSVARELLOPHRLYC 456
Gallus_gallus     YEHFYTVLKPWKHYVPVKRSLDLEKIKWAKENDEEAQKIAKEGQSVARELLOPHRLYC 457
Mus_musculus      YEHFYVALKPWKHYVPIKRNLDLLEKVKWAKENDEEAQKIAKEGQLTARDLLOPHRLYC 455
Rattus_norvegicus YEHFYVELRPWKHYVPIKRNLDLLEKVKWAKENDEEAQKIAKEGQLTARDLLOPHRLYC 460
Homo_sapiens      YEHFYMALEPWKHYVPIKRNLDLLEKVKWAKENDEEAQKIAKEGQLMARDLLOPHRLYC 459
Pan_troglodytes   YEHFYMALEPWKHYVPIKRNLDLLEKVKWAKENDEEAQKIAKEGQLMARDLLOPHRLYC 459
Macaca_mulatta    YEHFYMALEPWKHYVPIKRNLDLLEKVKWAKENDEEAQKIAKEGQLMARDLLOPHRLYC 459
Callithrix_jacchus YEHFYMALEPWKHYVPIRNLGDLLEKVKWAKENDEEAQKIAKEGQLMARDLLOPHRLYC 458
Equus_caballus    YEHFYVALKPWKHYVPIKRNLDLLEKVKWAKENDEEAQKIAKEGQLTARELLOPHRLYC 460
Canis_lupus_familiaris YEHFYMALOPWKHYVPIKRNLDLLEKIKWAKENDEEAQKIAKDGQLAARDLLOPHRLYC 471
Xenopus_tropicalis YEHFYSGLKPKWKHYVPFKRNLDLLEKIQWAKDHDEEAQKIAKEGQTLARELLOPHRLYC 461
Rhinatrema_bivittatum YEHFYHALKPWKHYVPINRSLRDLLEQVEWAKANDDEAKRIAREGQLLARELLOPHRLYC 468
.....430.....440.....450.....460.....470.....480

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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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Pavo_muticus      YYYKVLQKYAERQASKPEIRDMELVPPDDRDSVCSCHRKKPLREDL 504
Pavo_cristatus    YYYKVLQKYAERQASKPEIRDMELVPPDDRDSVCSCHRKKPLREDL 504
Gallus_gallus     YYYKVLQKYAERQASEPEIRDMELVPPDDRDSVCSCHRKKPLREDL 505
Mus_musculus      YYYRVLQKYAERQASKPMIRDMELVPPDDGTSICQCHRRRPEREEL 503
Rattus_norvegicus YYYRVLQKYAERQVSKPMIRDMERVPPDDSTSVRQCHRRRPEREEL 508
Homo_sapiens      YYYQVLQKYAERQSSKPEVRDMELVPPEDSTAICQCHRRKPSREEL 507
Pan_troglodytes   YYYQVLQKYAERQSSKPEVRDMELVPPEDSTAICQCHRRKPSREEL 507
Macaca_mulatta    YYYQVLQKYAERQSSKPEVRDMELVPPEDNTAICQCHRRKPSREEL 507
Callithrix_jacchus YYYQVLQKYAERQSSKPEVRDMELVPPEDSTAICQCHRRKPSREEL 506
Equus_caballus    YYYRVLQKYAERQSSKPEIRDMELVPPKDNESICQCHRRKPLREEL 508
Canis_lupus_familiaris YYYRVLQKYAERQSSRPKIRDMELVPPDDNTSMCQCHRRERPFREEL 519
Xenopus_tropicalis YYYKLFENYAKRQTSKPEIRENMEHVPPDDSSAMCQCHRRKRSKEEL 509
Rhinatrema_bivittatum YVYKVFQTYAKRQISAPEIRAGMELVPTEDNASACHHRKEFLKEEL 516
.....490.....500.....510.....520.....

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