File: /media/morpheus/disk1/fst/pep_msa/DYN@2H1Ipse Feb 1 12:03:34 2022 Page 1 of 25

	* ** * * * ** ** ****	
Pavo_muticus Pavo_cristatus Gallus_gallus Chelonia_mydas Rattus_norvegicus Mus_musculus Bos_taurus Equus_caballus Canis_lupus_familiaris Homo_sapiens Pan_troglodytes Macaca_mulatta Macaca_fascicularis Callithrix_jacchus Xenopus_tropicalis Rhinatrema_bivittatum	MDAEADPRKRFISATAANYFGLDPAAAP-AALRARPELSSFLDDGSEFLLVVQRSGSRMDAEADPRKRFISATAANYFGLDPAAAP-AALRARPELSSFLDDGSEFLLVVQRSGSRMAAESDPRKRFISATAANYFGLDPAAAP-AALRARPELNRFLDDGNEFLLVVQRSGSRMAAESDPKKRFISATAANYFGLDSSADPSALVASPQLANFLDDGNEFLLVVQRSGGR MSLAGAGDKKKRFILVTAANYFGLASSADPSSALVASPQLANFLDDGNCMLLRVQRSDAGMAGSLSDVRKLFLFTTTQNYFGLRPELWDQTPLSNCPEVNNFLDDGNCMLLRVQRSDAGMAGSLGDVRKLFLFTTTQNYFGLRPELWDQPPLSNCPEVNNFLDDGNCMLLRVQRSEAGMAGVPGDVRKLFIFATTRNYFGLVSESWDHALLGNGPEINNFLDDGNCMLLRVQRSDAGMAGGTGDVRKIFIFTTTQNYFGLVSEPWDQPLLYNGPEINNFLDDGNCMLLRVQRSDAGMAGGSGDVRKVFIFTTAQNYFGLVSEPWDQPLLYNGPEINNFLDDGNCMLLRVQRSDAGMANGTADVRKLFIFTTTQNYFGLMSELWDQPLLCNCLEINNFLDDGNCMLLRVQRSDAGMANGTADVRKLFIFTTTQNYFGLMSELWDQPLLCNCLEINNFLDDGNCMLLRVQRSDAGMANGTADVRKLFIFTTTQNYFGLMSELWDQPLLCNCLEINNFLDDGNCMLLRVQRSDAGMANGTADVRKLFIFTTTQNYFGLMSELWDQPLLCNCLEINNFLDDGNCMLLRVQRSDAGMANGTADVRKLFIFTTTQNYFGLMSELWDQPLLCNCLEINNFLDDGNCMLLRVQRSDAGMANGSADVRKLFIFTTTQNYFGLMSELWDQPLLCNCLEINNFLDDGNCMLLRVQRSDAGMANGSADVRKLFIFTTTQNYFGLMSELWDQPLLCNCLEINNFLDDGNCMLLRVQRSDAG	57 57 59 59 59 59 59 59 59 59 59
Pavo_muticus Pavo_cristatus Gallus_gallus Chelonia_mydas Rattus_norvegicus Mus_musculus Bos_taurus Equus_caballus Canis_lupus_familiaris Homo_sapiens Pan_troglodytes Macaca_mulatta Macaca_fascicularis Callithrix_jacchus Xenopus_tropicalis Rhinatrema_bivittatum	LSASNKIETTDSKSNVLVFFKLRPDVITEDNLHSNILVSSVLDSPINSLYQAVRQVFAPV LSASNKIETTDSKSNVLVFFKLRPDVITEDNLHSNILVSSVLDSPINSLYQAVRQVFAPV LSASNKIETTDSKSNVLVFFKLRPDVITEDNLHSNILVSSVLDSPINSLYQAVRQVFAPV LSASNKIETTDSKNVLVFFKLRPDVITEDNLHSNILVSSMLDSPINTLYQAVRQVFAPV LTVSNKVEAGDSKDKVLVFFKLRPDVITEDNLHSNILVSSMLDSPINTLYQAVRQVFAPV LAFSNTIDFDDTKDKVLVFFKLRPEVITDGNLHTNILVSSMLESPINSLYQAVRQVFAPM LAFSNTIDFDDAKDKVLVFFKLRPEVITDGNLHNNILVSSMLESPINSLYQAVRQVFAPM IAFSNVIDFADTKDKVLVFFKLRPEVITDQNLHNNILVSSMLESPINSLYQAVRQVFAPM ISFSNTIDFADTKDKVLVFFKLRPEVITDQNLHNNILVSSMLESPINSLYQAVRQVFAPM VSFSNAIDFADTKDKVLVFFKLRPEVITDKNLHSNILVSSMLESPINSLYQAVRQVFAPM VSFSNAIDFADTKDKVLVFFKLRPEVITDENLHDNILVSSMLESPISSLYQAVRQVFAPM ISFSNTIEFGDTKDKVLVFFKLRPEVITDENLHDNILVSSMLESPISSLYQAVRQVFAPM ISFSNTIEFGDTKDKVLVFFKLRPEVITDENLHDNILVSSMLESPISSLYQAVRQVFAPM ISFSNTIEFGDTKDKVLVFFKLRPEVITDENLHDNILVSSMLESPISSLYQAVRQVFAPM ISFSNTIEFGDTKDKVLVFFKLRPEVITDENLHDNILVSSMLESPISSLYQAVRQVFAPM ISFSNTIEFGDTKDKVLVFFKLRPEVITDENLHDNILVSSMLESPISSLYQAVRQVFAPM ISFSNTVDFGDTKDKVLVFFKLRPEVITDENLHDNILVSSMLESPISSLYQAVRQVFAPM ISFSNTVDFGDTKDKVLVFFKLRPEVITDENLHDNILVSSMLESPISSLYQAVRQVFAPM ISFSNKLDPGDTKENVLVFFKLRPEVITDENLHDNILVSSMLESPISSLYQAVRQVFAPU VRFSNKLDPGDTKENVLVFFKLRPDVITEDNLYGNILISSMLESPINTLYQAVRQVFAPI LIFSNQVDAGDTKDKVLVFFKLRPDVITEDNLHDNILVSSMLDSPINALYQAVRQVFAPI	117 117 117 120 119 119 119 119 119 119 119
Pavo_muticus Pavo_cristatus Gallus_gallus Chelonia_mydas Rattus_norvegicus Mus_musculus Bos_taurus Equus_caballus Canis_lupus_familiaris Homo_sapiens Pan_troglodytes Macaca_mulatta Macaca_fascicularis Callithrix_jacchus Xenopus_tropicalis Rhinatrema_bivittatum	****::**::****** LLKDDKWSRTLDPKLQRLLSELEAGLSAVLRRSDPNCTGTEFT-EDDVQAILTPTDEFQF LLKDDKWSRTLDPKLQRLLSELEAGLSAVLRRSDPNCTGTEFT-EDDVQAILTPTDEFQF LLKDEKWSKTLDPKLQKLLSELEAGLSTVLRRSDPNCTGTEFT-EDDVQAILTPTDEFQF LLKDEKWSREFDPKLQNLLSELEIGLGTVLRRSDPNYSGTKFR-EDDVRAILTPNDEFQF LLKDQEWSRNFDPKLQNLLSELEAGLGVVLRKSDTNLPKLKLK-EDDTRGILTPSDEFQF LLKDQEWSRNFDPKLQNLLSELEAGLGIVLRKSDTNLPKLKLK-EDDTRGILTPSDEFQF LLKDQEWSRNFDPKLQNLLSELEAGLGIVLRRSDTNLSKLKFK-EDDTRGILTPSDEFQF LLKDQEWSRNFDPKLQNLLSELEAGLGIVLRRSDTNLSKLKFK-EDDTRGILTPSDEFQF LLKDQEWSRNFDPKLQNLLSELEAGLGIVLRRSDTNLSKLKFK-EDDTRGILTPSDEFQF LLKDQEWSRNFDPKLQNLLSELEAGLGIVLRRSDTNSKLKFK-EDDTRGILTPSDEFQF LLKDQEWSRNFDPKLQNLLSELEAGLGIVLRRSDTNLTKLKFK-EDDTRGILTPSDEFQF LLKDQEWSRNFDPKLQNLLSELEAGLGIVLRRSDTNLTKLKFK-EDDTRGILTPSDEFQF LLKDQEWSRNFDPKLQNLLSELEAGLGIVLRRSDTNLTKLKFK-EDDTRGILTPSDEFQF LLKDQEWSRNFDPKLQNLLSELEAGLGIVLRRSDTNLTKLKFK-EDDTRGILTPSDEFQF LLKDQEWSRNFDPKLQNLLSELEAGLGIVLRRSDTNLTKLKFK-EDDTRGILTPSDEFQF LLKDQEWSRNFDPKLQNLLSELEAGLGIVLRRSDTNLTKLKFK-EDDTRGILTPSDEFQF LLKDQEWSRNFDPKLQSLLSELEAGLGIVLRRSDTNLTKLKFK-EDDTRGILTPSDEFQF LLKDQEWSRNFDPKLQSLLSELEAGLGIVLRRSDTNLSKLKFK-EDDTRGILTPSDEFQF LLKDEKWSKNFDPKLQSLLSELEAGLGIVLRRSDTNLSKLKFK-EDDTRGILTPSDEFQF LLKDEKWSKNFDPKLQSLLSELEAGLGITLRKSVSSHGKPTFGGEDDLQGILTPNDEFQF LLKDEKWSKNFDPKLQTLLSELEAGLGTILRRADPTNKGTKFRGEDDILGIFTPSDEFQF LLKDEKWSKNFDPKLQTLLSELEAGLGTILRRADPTNKGTKFRGEDDILGIFTPSDEFQF LLKDEKWSKNFDPKLQTLLSELEAGLGTILRRADPTNKGTKFRGEDDILGIFTPSDEFQF LLKDEKWSKNFDPKLQTLLSELEAGLGTILRRADPTNKGTKFRGEDDILGIFTPSDEFQF LLKDEKWSKNFDPKLQTLLSELEAGLGTILRRADPTNKGTKFRGEDDILGIFTPSDEFQF LLKDEKWSKNFDPKLQTLLSELEAGLGTILRRADPTNKGTKFRGEDDILGIFTPSDEFQF LLKDEKWSKNFDPKLQTLLSELEAGLGTILRRADPTNKGTKFRGEDDILGIFTPSDEFQF LLKDEKWSKNFDPKLQTLLSELEAGLGTILRRADPTNKGTKFRGEDDILGIFTPSDEFQF LLKDEKWSKNFDPKLQTLLSELEAGLGTILRRADPTNKGTKFRGEDDILGIFTPSDEFQF LLKDEKWSKNFDPKLQTLLSELEAGLGTILRRADPTNKGTKFRGEDDILGIFTPSDEFQF	176 176 179 178 178 178 178 178 178 178 178 178 178

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Pavo muticus	WKECAQHGNKLRGKERASHFKDLFEDIAKHYYNLDSLSLLEVVDLVETTRDTVDNVWRQT	236
Pavo_cristatus	WKECAQH <mark>GNK</mark> LRGKERASHFKDLFEDIAKHYYNLDSLSLLEVVDLVETTRDTVDNVWRQT	236
Gallus_gallus	WKECAQHGNKLRGKERASHFKDLFEDIAEHYYNLDSLSLLEVVDLVETTRDTVDNVWRQT	236
Chelonia_mydas	WIERAHRGSKSCSKERASHFKDLFEVIARDYYNLDSLSLFEVVDLVETTRDTVDDVWRQT	239
Rattus_norvegicus	WIEQAHRGSKQISKERASYFKELFETIAREFYNLDSLSLLEVVDLVETTRDVVDDVWRQT	238
Mus_musculus	WIEQAHRGSKQISKERASYFKELFETISREFYNLDSLSLLEVVDLVETTRDVVDDVWRQT	238
Bos_taurus_	WIEQAHRGSKQITKERASYFKELFETIAREFYNLDGLSLLEVVDLVETTRDVVDDVWRQT	238
Equus_caballus	WIEQAHRGNKQISRERASYFKELFETIAREFYNLDGLSLLEVVDLVETTRDVVDDVWRQT	238
Canis_lupus_familiaris	WVEQAHRGNKQISKERANYFKELFETIAREFYNLDSLSLPEVVDLVETTRDVVDDVWRQT	238
Homo_sapiens	WIEQAHRGNKQISKERANYFKELFETIAREFYNLDSLSLLEVVDLVETTQDVVDDVWRQT	238
Pan_troglodytes	WIEQAHRGNKQISKERANYFKELFETIAREFYNLDSLSLLEVVDLVETTQDVVDDVWRQT	238
Macaca_mulatta Macaca fascicularis	WIEQAHRGNKQISKERANYFKELFETIAREFYNLDSLSLLEVVDLVETTQDVVDDVWRQT WIEQAHRGNKQISKERANYFKELFETIAREFYNLDSLSLLEVVDLVETTQDVVDDVWRQT	238 238
Callithrix jacchus	WIEQAHRGNKQISKERANYFKELFETIAREFYNLDSLSLIEVVDLVETTRDVVDDVWRQT	238
Xenopus_tropicalis	WTEVSASKSKSSARERASHFTSLFQSIANYYSTLDNLPLSEVVQLVETTQETVDDVWRQT	235
Rhinatrema bivittatum	WTELAQSGNKSINKERAKHFMGLFQTVSQYYNSLDSISLFDVVELVESTREAIDDVWRQT	239
MITTIGET CING_DIVICEGE	190200210220230240	200
	::: :*: ** :**:** : * :*::: :. *: **::::*** :*****	
Pavo_muticus	EHDPYPQPRMHNLLDVIGSCLVRFVQRKLATLNLWEDAFHIVKENIKAGILICEQWVSAC	296
Pavo_cristatus	EHDPYPQPRMHNLLDVIGSCLVRFVQRKLATLNLWEDAFHIVKENIKAGILICEQWVSAC	296
Gallus_gallus	EHDPFPQPRMRNLLDVIGSCLGRFVQRKLATLNLWEDAFHIVKENIKAGILICEQWVSAC	296
Chelonia_mydas	EHDPFPQPRMQNLLDVIGGSLGRFVQKKMETLNLWEDAFHIVKENLKAGIMICEQWVAAC	299
Rattus_norvegicus	EHDHYPESRMLHLLDVIGGSFGRFVQKKLGSLKLWEDPYYLVKENLKAGISICEQWVIVC	298
Mus_musculus	EHDHYPESRMLHLLDVIGGSFGRFVQKKLGSLKLWEDPYYLVKENLKAGISICEQWVIVC	298
Bos_taurus_	EHDHYPESRMLHLLDIIGGSFGRFVQKKLGTLNLWEDPYYLVKENLKAGISVCEQWVTAC	298
Equus_caballus	EYDHYPESRMLHLLDIIGGSFGRFVQKKLGTLNLWEDPYYLVKENLKAGISICEQWVTAC	298
Canis_lupus_familiaris		298
Homo_sapiens	EHDHYPESRMLHLLDIIGGSFGRFVQKKLGTLNLWEDPYYLVKESLKAGISICEQWVIVC	298
Pan_troglodytes	EHDQYPESRMLHLLDIIGGSFGRFVQKKLGTLNLWEDPYYLVKESLKAGISICEQWVIVC	298
Macaca_mulatta	EHDHYPESRMLHLLDIIGGSFGRFVQKKLGTLNLWEDPYYLVKESLKAGISICEQWVIVC	298
Macaca_fascicularis Callithrix_jacchus	EHDHYPESRMLHLLDII <mark>GGSFGR</mark> FV <mark>QKKLGTL</mark> NLWEDPYYLVKESLKAGISICEQWVIVC EHDHYPESRMLHLLDII <mark>GGSFGR</mark> FV <mark>QKK</mark> LETLNLWEDPYHLVKESLKAGISICEQWVRVC	298 298
Xenopus_tropicalis	DYDPYPEHRMKHLLDIIGSALGRSVQRNLGDMDHWKGPFPTVKENLRAGITVCEQWAAAC	295
Rhinatrema bivittatum	EYEPYPEPRMLHLLDIIGGSLGRCIQKNLGTLNLWKDSYLTVKENLKAGITICEQWVAAC	299
KIIIIatiema_Divittatum	250260270280290300	2,7,7
	.:***:*: : ** .: :: .* ** ** :* : ** :: :	
Pavo_muticus	EYL <mark>TGQ</mark> LWQRYTLHQWKNEKYIPESLIKLCKRLDEVLTVRTLHEKLTHFLPSGEQNDLHL	356
Pavo_cristatus	EYL <mark>TGQLWQRYTLHQWKNEKYIPES</mark> LI <mark>K</mark> LCKRLDEVLTVRTLHEKLTHFLPSGEQNDLHL	356
Gallus_gallus	EYLTGQLWQRYTLHQWKNEKYIPESLIELCKRLDEVLIVRTLHEKLTYFLPSGEQNDLHL	356
Chelonia_mydas	DHLTGQLWQRYTPYPWKSEKYVPETLDKLGKRLDEVLTIRTLHEKLAYFLPMGEQQTLHL	359
Rattus_norvegicus	SHLTGQVWQRYVPHPWKSEKYFPETLDRLGKRLEEVLAIRTIHEKLLYFLPASEERIVCL	358
Mus_musculus	SHLTGQVWQRYVPHPWKSGKYFPETLDKLGKRLEEVLAIRTIHEKLLYFLPASEERIVCL	358
Bos_taurus	SHLTGQVWQRYVPHPWKNEKYFPETLDKLGKRLEEVLAVRTIHEKLLYFSPASDEKIICL	358
Equus_caballus	DHLTGQVWQRYVPHPWKNEKYFPETLDKLGKRLEEVLAVRTIHEKLLYFLPASEEKIICL	358
	NHLTGQVWQRYVPHPWKNEKYVPETLEKLGKRLEEVLAVRTIHEKLLYFLPASEEKIICL	358
Homo_sapiens Pan_troglodytes	NHL <mark>TGQVWQRYVPHPWKNEKYFPETLDKLGKRLEEVLAIRTIHEKFLYFLPASEEK</mark> IICL NHL <mark>TGQ</mark> VWQRYVPHPWKNEKYFPETLDKLGKRLEEVLAIRTIHEKFLYFLPASEEKIICL	358 358
Macaca mulatta	NHLTGQVWQRIVPHPWKNEKIFPETLDKLGKRLEEVLAVRTIHEKLLYFLPASEEKIICL	358
Macaca_mulatta Macaca fascicularis	NHLTGOVWORYVPHPWKNEKYFPETLDKLGKRLEEVLAVRTIHEKLLYFLPASEEKIICL	358
Callithrix jacchus	NHLTGQVWQRIVPHPWKNEKIFPETLDKLGKRLEEVLAVRTIHEKLLYFLPSSEEKIICH	358
Xenopus tropicalis	EHLTGQLWRRFTPHPWKTDTFSFDSIKKLGGRLAEVLSIRMVHEKLLHFLPSGEDNALRS	355
Rhinatrema bivittatum	SHLTGOLWORYTPHPWKHEKYYPESLDKLGKRLEEVLTIRTVTEKLNYFLPTGEOOGLHL	359
	310320340350360	555

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Pavo muticus	AQVFEPFAGLNPVHCNPYTEPLWKAAVSQFERIIAPAEQKMAIKLKKLISEIQDSPQQLL	416
Pavo_cristatus	AQVFEPFAGLNPVHCNPYTEPLWKAAVSQFERIIAPAEQKMAIKLKKLISEIQDSPQQLL	416
Gallus_gallus	AQVFEPFAGLNPVHCNPYTEPLWKAAVSQFERIIAPAEQKVAIKLKKFISEIQDSPQQLL	416
Chelonia_mydas	AQVFEPFACLNPVHYNPYTEPLWRAAVSQYERIVAPVEQKIASKLKTFISEIQDSPQQLL	419
Rattus norvegicus	SRVFEPFTGVNPVQYNPYTEPLWKAAVSQYEKIIAPAEQKIAGKLKNYISEIQDSPQQLL	418
		418
Mus_musculus	SRVFEPFTGVNPVQYNPYTEPLWKAAVSQYEKIIAPAEQKIAGKLKNYISEIQDSPQQLL	-
Bos_taurus_	ARVFEPFSGLNPVQYNPYTEPLWKAAVSQYEKIIAPAEQKIAGKLKNYISEIQDSPQQLL	418
Equus_caballus	ARVFEPFTGLNPVQYNPYTEPLWKAAVSQYEKIIAPAEQKIAGKLKNYISEIQDSPQQLL	418
Canis_lupus_familiaris	TRVFEPFTGLNPVQYNPYTEPLWKAAVSQYEKIIAPAEQKIAAKLKNYISEIQDSPQQLL	418
Homo_sapiens	TRVFEPFTGLNPVQYNPYTEPLWKAAVSQYEKIIAPAEQKIAGKLKNYISEIQDSPQQLL	418
Pan_troglodytes	TRVFEPFTGLNPVQYNPYTEPLWKAAVSQYEKIIAPAEQKIAGKLKNYISEIQDSPQQLL	418
Macaca mulatta	TRVFEPFTGLNPVQYNPYTEPLWKAAVSQYEKIIAPAEQKIAGKLKSYISEIQDSPQQLL	418
Macaca fascicularis	TRVFEPFTGLNPVOYNPYTEPLWKAAVSOYEKIIAPAEOKIAGKLKSYISEIODSPOOLL	418
Callithrix jacchus	PRVFEPFTGLNPVQYNPYTEPLWKAAVSQYEKIIAPAEQKIAGKLKNYISEIQDSPQQLL	418
		415
Xenopus_tropicalis	VKVFEPFTGLNPVHYNPYTEPLWRAAVSQYERIIEPAEQKIAVKLKTYFSEFHDSPQQLL	_
Rhinatrema_bivittatum	SQVFEPFAGLNPVHYNSYTEPLWKAAVSQYERILEPAERKIASKLKTYISEIH <mark>NSP</mark> QQFM	419
	370380390400410420	
	. *.***.* * .***.** * *. *** **. **. ***.*	
Pavo muticus	QTFQKYKELIKHPKTSKELLFERETLLARLQDYVKDCQADFETRCHGVPGDVSGPLSGKN	476
Pavo cristatus	QTFQKYKELIKHPKTSKELLFERETLLARLQDYVKDCQADFETRCHGVPGDVSGPLSGKN	476
_	QTFQKYKELIKHPNTSKELLFERETLLARLQDYVKDYQTDFETRCHGVPGDVSGPLSGKN	476
Gallus_gallus		
Chelonia_mydas	QAFQKYKELVKRPSISKELLFERETLLARLQDSVKDFRTDFEARCHGVPGDVSGPLSGKN	479
Rattus_norvegicus	QAFLKYKELVKRPTISKELMLERETLLARLGDSAKDFRLDFENRCRGIPGDASGPLSGKN	478
Mus_musculus	QAFLKYKELVKRPTISKELMLERETLLARLGDSAKDFRLDFENRCRGIPGDPSGPLSGKN	478
Bos_taurus	QAFLKYKELVKRPTISKELMLERETLLARLMDSVKDFRLDFENRCRGIPGDASGPLAGKN	478
Equus_caballus	QAFLKYKELVKRPTISKELMLERETLLARLVDSVKDVRLDFETRCRGIPGDASGPLAGKN	478
Canis_lupus_familiaris	QAFLKYKELVKRPTISKELMLEREALLARLVDSVKDFRLDFENRCRGVPGEASGPLSGKN	478
Homo_sapiens	QAFLKYKELVKRPTISKELMLERETLLARLVDSIKDFRLDFENRCRGIPGDASGPLSGKN	478
Pan_troglodytes	QAFLKYKELVKRPTISKELMLERETLLARLVDSIKDFRLDFENRCRGIPGDASGPLSGKN	478
	OAFLKYKELVKRPTISKELILERETLLARLVDSIKDFRSDFETRCRGIPGDASGPLSGKN	478
Macaca_mulatta		_
Macaca_fascicularis	QAFLKYKELVKRPTISKELILERETLLARLVDSIKDFRSDFETRCRGIPGDASGPLSGKN	478
Callithrix_jacchus	QAFLKYKELVKRPTISRELMLERETLLARLVDSVKDFRLDFENRCRGTPGDASGPLSGKN	478
Xenopus_tropicalis	QAFQKHKELVKRPSLKKVLNLERETLLTRLQDYNKDILSDFESRCHGSPGDSSGPLTGRN	475
Rhinatrema_bivittatum	QVFQKYKELVKRPSIRKELILERETLLSRLLDNIKGFRTDFESRCHGIPGEISGPLSGKN	479
	430440450460470480	
	*.***.***.**.*.*	
Pavo muticus	LSEVVNNIVWVRQLEMKVDDATKLAEALLSDLSGFQTFHRSAGSFLEQLKVYEQEQFDDW	536
Pavo_cristatus	L <mark>SEVVNNIVWVRQLEMKVDDATK</mark> LAEALL <mark>SDLSGFQTFHRSAG</mark> SFLEQLKVYEQEQFDDW	536
Gallus_gallus	L <mark>SEVVNNIVWVRQLEMKVDDTIK</mark> LSEALL <mark>SDLSG</mark> FQTFHRSAGSFLEQLKVYEQEQFDDW	536
Chelonia_mydas	L <mark>SEVVNNIVWVRQLQLKVDDAIK</mark> IAEALL <mark>SDLSGFQTFRQNADDLLEQFKVYEQEQFDG</mark> W	539
Rattus_norvegicus	L <mark>SEVVNNIVWVRQLELKVDDTIK</mark> IAEALL <mark>SDLSG</mark> FRSFHRSAEDLLDQFKLYEQEQFDDW	538
Mus musculus	LSEVVNNIVWVRQLELKVDDTIKIAEALLSDLSGFRSFHRSAEDLLDQFKLYEQEQFDDW	538
Bos_taurus	LSEVVNNIVWVRQLELKVDDTIKIAEALLSDLSGFRSFHRSAEDLLDQFKLYEQEQFDDW	538
Equus caballus	LSEVVNNIVWVR <mark>OLELKVDDTIKIAEALLSDLSGFRSFYRNAEDLLDOFKIYEOEO</mark> FDDW	538
	LSEVVNNIVWVHQLELKVDDTLKIAEALLFDLSGFRSFHRSAEDLLDQFKLYEQEQFDDW	538
Homo sapiens	LSEVVNSIVWVRQLELKVDDTIKIAEALLSDLPGFRCFHQSAKDLLDQLKLYEQEQFDDW	538
Pan_troglodytes	LSEVVNNIVWVRQLELKVDDTIKIAEALLSDLSGFRCFHQSAEDLLDQLKLYEQEQFDDW	538
Macaca_mulatta	L <mark>SEVVNN</mark> IVWVRQLELKVDDTIKIAEALLSDLSGFRCFHRNAEDLLDQLKLYEQEQFDDW	538
Macaca_fascicularis	L <mark>SEVVNN</mark> IVWVRQLELKVDDTIKIAEALLSDLSGFRCFHRNAEDLLDQLKLYEQEQFDDW	538
Callithrix_jacchus	L <mark>SEVVNNIVWVRQLELKVDDTLK</mark> IAEALL <mark>SDLSGFRCFHRSAEDLLDQLKLYEQEQFDD</mark> W	538
Xenopus_tropicalis	L <mark>PEVVNNIVWVRQLQMKVEDTVKTAD</mark> ALL <mark>SDLSGFP</mark> SFRKSAKDLLDQLKVYEQEQFEDW	535
Rhinatrema_bivittatum	LPEVVNNIVWVRHLELKVDDTIKIAEALLFDLSGFQSFRRSADDLLEQFKIYEQDHFDDW	539
	490500510520530540	

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Pavo muticus	SRNIQSEVSNPKSGLCIQANSPVMELDHVFGTLNILYSDRLVTLLREVRQLSALGFVIPA	596
Pavo cristatus	SRNIQSEVSNPKSGLCIQANSPVMELDHVFGTLNILYSDRLVTLLREVROLSALGFVIPA	596
Gallus_gallus	SRNIQSEVSNPKSGLCIQANSPVMELDHVFGTLNILYSDRLVTLLREVRQLSALGFVIPA	596
Chelonia mydas	SRDIQSGLSNPRSGLCMQASSPIMELDHCDGELKIHYSDRLVTLLREVRQLSALGFVIPA	599
Rattus_norvegicus	SREVQSGLSDSRSGLCIEANSRIMELDPNDGALKVHYSDRLVILLREVRQLSALGFVIPA	598
Mus_musculus	SREVOSGLSDSRSGLCIEANSRIMELDPNDGALKVHYSDRLVILLREVROLSALGFVIPA	598
Bos_taurus	SRDIQSGLSDSKSGLCIEANSRIMELDPNDGSLKVHYSDRLVVLLREVRQLSALGFVIPA	598
Equus_caballus	SRDIQSGLSDSRSGLSIEANGRIMELDPNDGSLKVHYSDRLVILLREVRQLSALGFVIPA	598
Canis_lupus_familiaris	SRDIQSGLSDSRSGLCIEANSRIMELDPNDGSLKVHYSDRLVILLREVRQLSALGFVIPA	598
Homo_sapiens	SRDIQSGLSDSRSGLCIEASSRIMELDSNDGLLKVHYSDRLVILLREVRQLSALGFVIPA	598
Pan_troglodytes	SRDIQSGLSDSRSGLCIEAS SRIMELDSKDGSLKVHYSDRLVILLREVRQLSALGFVIPA	598
Macaca_mulatta	SRDIQSGLSDSRSGLCIEAS SRIMELD SNDGSLKVHYSDRLVILLREVRQLSALGFVIPA	598
Macaca_muracca Macaca fascicularis	SRDIQSGLSDSRSGLCIEAS SRIMELD SNDGSLKVHYSDRLVILLREVRQLSALGFVIPA	598
Callithrix_jacchus	SRDIQSGLSDSRSGLCIEAS SRIMELD SNDGSLKVHYSDRLVILLREVRQLSALGFVIPA	598
Xenopus_tropicalis	LREINAGLSDPKSGFSLOPNSOVMELDHSNGTLKIHYSDRLVTLLREVROLSALGLVIPP	595
Rhinatrema bivittatum	SREIQSGLSDSKSGICIQASSRVMELDHSDGTLKINYSDRLVTLLREVRQLSALGFVIPT	599
KIIIIIaciellia_Diviccaculii	550560570580590600	399
	: ** * ***: *********************	
Pavo muticus	KIOHVANTAOKFSKOAVILKOVAHFYNSIDOOMIESOKPMMLOSALAFEOIIKHSKSGPG	656
Pavo_muticus Pavo_cristatus	KIQHVANTAQKFSKQAVILKQVAHFINSIDQQMIESQKPMMLQSALAFEQIIKHSKSGPG	656
Gallus_gallus	KIQHVANTAQKFSKQAVILKQVAHFINSIDQQMIESQKPMMLQSALAFEQIIKHSKSGPG	656
		659
Chelonia_mydas	KIQQVANTAQKFCKQAVILKQVAHFYNSIDQQMIQSQKPMMLQSALAFEQIIKHSKAGSG KIQQVANVAQKFCKQAIILKQVAHFYNSIDQQMIQSQRPMMLQSALAFEQIIKNSKAGSG	658
Rattus_norvegicus		
Mus_musculus	KIQQVANVAQKFCKQAIILKQVAHFYNSIDQQMIQSQRPMMLQSALAFEQIIKNSKAGSG	658
Bos_taurus	KIQQVANIAQKFCKQAIILKQVAHFYNSIDQQMIQSQRPMMLQSALAFEQIIKNSKAGSG	658
Equus_caballus	KIQQVANIAQKFCKQAIILKQVAHFYNSIDQQMIQSQRPMMLQSALAFEQIIKNSKAGSG	658
Canis_lupus_familiaris	KIQQVANIAQKFCKQAIILKQVAHFYNSIDQQMIQSQRPMMLQSALAFEQIIKNSKAGSG	658
Homo_sapiens	KIQQVANIAQKFCKQAIILKQVAHFYNSIDQQMIQSQRPMMLQSALAFEQIIKNSKAGSG	658
Pan_troglodytes	KIQQVANIAQKFCKQAIILKQVAHFYNSIDQQMIQSQRPMMLQSALAFEQIIKNSKTGSG	658
Macaca_mulatta	KIQQVANIAQKFCKQAIILKQVAHFYNSIDQQMIQSQRPMMLQSALAFEQIIKNSKTGSG	658
Macaca_fascicularis	KIQQVANIAQKFCKQAIILKQVAHFYNSIDQQMIQSQRPMMLQSALAFEQIIKNSKTGSG	658
Callithrix_jacchus	KIQQVANIAQKFCKQAIILKQVAHFYNSIDQQMIQSQRPMMLQSALAFEQIIKNSKTGSG	658
Xenopus_tropicalis	KIQQAAKTAQKFYKQAIILKQVAHFYNTIDQQMIQSQRPMMLNSALAFEQIIKNTRTSSG	655
Rhinatrema_bivittatum	KIQQAANTAQKFYKQAIVLKQVAHFYNTIDQQMIQSQRPMMLNSALAFEQIIKNSKTGSV	659
	610620630640650660	
	***.** . ** . ** . * . * . * * * * *	
B		51 2
Pavo_muticus	GNAQITWDNPRELEAYIQKLQAAAERLSTENRKLRKWHTNFIEKVISLMNIDLLRQQ	713
Pavo_cristatus	GNAQITWDNPRELEAYIQKLQAAAERLSTENRKLRKWHTNFIEKVISLMNIDLLRQQ	713
Gallus_gallus	GNAQITWDNPRELEAYIQKLQAAAERLSTENRKLRKWHTNFTEKIISLMNIDLLRQQ	713
Chelonia_mydas	GKTQITWDNPKELEAYIQKLQAAAERLSTENRKLRKWHTTFIEKVVVLMNIDLLRQQ	716
Rattus_norvegicus	GKSQITWDNPKELEGYIQKLQNAAERLATENRRLRKWHTTFCEKVVILMNIDLLRQQ	715
Mus_musculus	GKSQITWDNPKELEGYIQKLQNAAERLATENRRLRKWHTTFCEKVVILMNIDLLRQQ	715
Bos_taurus	GKSHITWDNPKELEGYIQKLQNAAERLATENRKLRKWHTTFCEKVVVLMNIDLLRQQ	715
Equus_caballus	GKSQITWDNPKELEGYIQKLQNAAERLATENRKLRKWHTTFCEKVVVLMNIDLLRQQ	715
	GKSQITWDNPKELEGYIQKLQNAAQRLATENRKLRKWHTIFCEKVVVLMNIDLLRQQ	715
Homo_sapiens	GKSQITWDNPKELEGYIQKLQNAAERLATENRKLRKWHTTFCEKVVVLMNIDLLRQQ	715
Pan_troglodytes	GKSQITWDNPKELEGYIQKLQNAAERLATENRKLRKWHTTFCEKVVVLMNIDLLRQQ	715
Macaca_mulatta	GKSQITWDNPKELEGYIQKLQNAAERLATENRKLRKWHTTFCEKVVVLMNIDLLRQQ	715
Macaca_fascicularis	GKSQITWDNPKELEGYIQKLQNAAERLATENRKLRKWHTTFCEKVVVLMNIDLLRQQ	715
Callithrix_jacchus	GKSQITWDNPKELEGYIQKLQNAAERLATENRKLRKWHTTFCEKVVVLMNVDLLRQQ	715
Xenopus_tropicalis	ESSQKMHITWNNPKDLQDYIEKLQGVAQQLATENRKLRKKHKDFSEKVVALMNIDLLRHQ	715
Rhinatrema_bivittatum	DSVHKVQITWDNPKELEAYIQKLQSAAERLTTENRKLRKCHTNFCEKVVALMNVDLLRQQ	719
	670680690710720	

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	*:**** ::* ::: **: :::*:***************	
Pavo muticus	QRWKDGLQELRTGFASLESQGFKSSDMKAWRQHWNHQLYKALEHQYQIGLEALNENLPEI	773
Pavo cristatus	ORWKDGLQELRTGFASLESQGFKSSDMKAWRQHWNHQLYKALEHQYQIGLEALNENLPEI	773
Gallus_gallus	QRWKDGLQELRTGFASLESQGFKSSDMKAWRQHWNHQLYKALEHQYQIGLEALNENLPEI	773
Chelonia_mydas	QRWKDGLQELRSGFASLESQGFLPRDMKAWRQHWNHQLYKALEHQYQMGLEALNENLPEI	776
Rattus norvegicus	QRWKDGLQELRTGLASVAAQGFQPSDMRAWRQHWNHQLYKALEHQYQMGLEALNENLPEI	775
Mus musculus		775
<u> </u>	QRWKDGLQELRTGLATVAAQGFQASDMRAWRQHWNHQLYKALEHQYQVGLEALNENLPEI	_
Bos_taurus_	QRWKDGLQELRTGLASVEAQGFQASDMHAWKQHWNHQVYKALEHQYQMGLEALNENLPEI	775
Equus_caballus	QRWKDGLQELRTGLASVEAQGFQASDMHAWKQHWNHQLYKALEHQYQMGLEALNENLPEI	775
Canis_lupus_familiaris	QRWKDGLQELRTGLASVEAQGFQASEMHAWKQHWNHQLYKALEHQYQMGLEALNENLPE1	775
Homo_sapiens	QRWKDGLQELRTGLATVEAQGFQASDMHAWKQHWNHQLYKALEHQYQMGLEALNENLPEI	775
Pan_troglodytes	QRWKDGLQELRTGLATVEAQGFQASDMHAWKQHWNHQLYKALEHQYQMGLEALNENLPEI	775
Macaca_mulatta	QRWKDGLQELRTGLATVEAQGFQASDMHAWKQHWNHQLYKALEHQYQMGLEALNENLPEI	775
Macaca fascicularis	QRWKDGLQELRTGLATVEAQGFQASDMHAWKQHWNHQLYKALEHQYQMGLEALNENLPEI	775
Callithrix_jacchus	QRWKDGLQELRTGLATVEAQGFQASDMHAWKQHWNHQLYKALEHQYQMGLEALNENLPEI	775
Xenopus_tropicalis	OKWKDGLLEIRSVFSNLEYOGLRSSDMRPWROHWNHOLYKALEHOYOIGLEALNENLPEI	775
		779
Rhinatrema_bivittatum	QRWKDGLLDLRGVFSNLESQGFRSSDMKAWRQHWNHQLYKALEHQYQMGLEALNENLPEI	119
	730740750760770780	
	:: :******:**:**:***:***:** **:*:.*. :*.**::*	
Pavo_muticus	NIDLTFKQGRLQFRPPFEEVRARYYREMKRFISIPNQFRGVSETEEESIFTVMTERNANG	833
Pavo cristatus	NIDLTFKQGRLQFRPPFEEVRARYYREMKRFISIPNQFRGVSETEEESIFTVMTERNANG	833
Gallus_gallus	NIDLTFKQGRLQFRPPFEEVRARYYREMKRFISIPYQFRGVSETEEESIFTVMTERNANG	833
Chelonia_mydas	NIDLTYKOGRLOFKPPFEEVRARYYREMKRFISLPNOFRGVSETEEESIFTIMTERNASG	836
Rattus_norvegicus	NVDLTYKQGRLQFRPPFEEIRAKYYREMKRFIGIPNQFKGVGEAGDESIFSVMIDRNASG	835
Mus_musculus	NVDLTYKQGRLQFRPPFEEIRAKYYREMKRFIGIPNQFKGVGEAGDESIFSVMIDRNASG	835
Bos_taurus	NIDLIYKQGRLQFKPPFEEIRAKYYREMKRFISIPNQFKGVGEAGDESIFSIMIDRNASG	835
Equus_caballus	NIDLTYKQGRLQFRPPFEEIRAKYYREMKRFIGIPNQFKGVGEAGDESIFSIMIDRNASG	835
Canis_lupus_familiaris	NIDLMYKQGRLQFRPPFEEIRAKYYREMKRFIGIPNQFKGVGEAGEESIFSVMIDRNASG	835
Homo_sapiens	NIDLTYKOGRLOFRPPFEEIRAKYYREMKRFIGIPNOFKGVGEAGDESIFSIMIDRNASG	835
Pan troglodytes	NIDLTYKQGRLQFRPPFEEIRAKYYREMKRFIGIPNQFKGVGEAGDESIFSIMIDRNASG	835
Macaca mulatta	NIDLTYKQGRLQFRPPFEEIRAKYYREMKRFIGIPNQFKGVGEAGDESIFSIMIDRNASG	835
Macaca fascicularis	NIDLTYKQGRLQFRPPFEEIRAKYYREMKRFIGIPNQFKGVGEAGDESIFSIMIDRNASG	835
_	NIDLTYKQGRLQFRPPFEEIRAKYYREMKRFIGIPNQFKGVGEAGDESIFSIMIDRNASG	835
Callithrix_jacchus		
Xenopus_tropicalis	NIDLTFKQGRLQFKPPFEEIRSKYYREMKRFISIPNQFKGLSEAGEEPIFSVMSERNANG	835
Rhinatrema_bivittatum	NIDIIFKQGRLQFKPPLEEVRAKYYRDMKRFISIPNQFKGVSEVGEEPIFSIMTERNANG	839
	790800810820830840	
	::.**:***::: *:: *:: *:: *:: *:: *:: *	
Pavo muticus	FLTAF <mark>SKAED</mark> LFRRLAEVCDQFKEWIVIGQVDMETLAKTHLSSKQDWEKNFKALKVRGKE	893
Pavo_cristatus	FLTAFSKAEDLFRRLAEVCDQFKEWIVIGQVDMETLAKTHLSSKQDWEKNFKALKVRGKE	893
Gallus_gallus	FLTAFSKAEDLFRRLAEVCNQFKEWIVIGQVDMETLAKTHLSSKQDWEKNFKALKVRGKE	893
Chelonia_mydas	FLTTFNKAEDLFRRLAEVSNOFKEWIIIGQVDMETLVETHLSGEQDWEKNFKALKGKGKE	896
Rattus_norvegicus	FL <mark>TIYSKAEDLFRRLSAVLHQHKE</mark> WVVI <mark>GQVDME</mark> ALV <mark>EK</mark> NLSTVHDWEKNFKALKIKGKE	895
Mus_musculus	FLTIYSKAEDLFRRLSAVLHQHKEWVVIGQVDMEALVEKNLSTVHDWEKNFKALKIKGKE	895
Bos_taurus	FL <mark>T</mark> IF <mark>SKAEDLFRRLS</mark> AVLH <mark>QHKE</mark> WIVI <mark>GQVDME</mark> ALVEKHLSTVHDWEKNFKALKIKGKE	895
Equus_caballus	FL <mark>TIFSK</mark> AEDLF <mark>RR</mark> LSAVLHQHKEWIVI <mark>GQ</mark> VDMEALVEKHLSTVHDWEKNFKALKIKGKE	895
Canis_lupus_familiaris	FLTIF <mark>SKAED</mark> LFRRLSAVLHQHKEWIVIGQVDMEALVEKHLSTVHDWEKNFKALKIKGKE	895
Homo sapiens	FLTIFSKAEDLFRRLSAVLHQHKEWIVIGQVDMEALVEKHLFTVHDWEKNFKALKIKGKE	895
Pan troglodytes	FLTIF <mark>SKAEDLFRRLSAVLHQHKE</mark> WIVI <mark>GQVDME</mark> ALVEKHLFTVHDWEKNFKALKIKGKE	895
Macaca mulatta	FLTIFSKAEDLFRRLSAVLHOHKEWIVIGOVDMEALVEKHLFTVHDWEKNFKALKIKGKE	895
Macaca fascicularis	FLTIFSKAEDLFRRLSAVLHQHKEWIVIGQVDMEALVEKHLFTVHDWEKNFKALKIKGKE	895
Callithrix_jacchus	FLTIFSKAEDLFRRLSAVLHQHKEWIVIGQVDMEALVEKHLFTVHDWEKNFKALKIKGKE	895
Xenopus_tropicalis	FITVFSKAEDLFRRLAATLDRFKEWVVIGQVDIDVLMNKNLHDVHDWEKNFKALKVRGKE	895
Rhinatrema_bivittatum	FITVFSKAENLFRRLSTALDQFKEWVAIGQVDVEKLVDEHLSTVYDWEKNFKALKVRGKE	899
	850860870880890900	

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Pavo muticus	AERLPSTIKIDCLTVNCNPVKTAIDDFIQKLYDVLVISLRKSIQAHLSDVSSFLNDAMET	953
Pavo cristatus	AERLPSTIKIDCLTVNCNPVKTAIDDFIQKLYDVLVISLRKSIQAHLSDVSSFLNDAMET	953
Gallus_gallus	AERLPSTIKIDCLTVNCNPVKTAIDDFIQKLYDVLVISLRKSIQAHLSDVSSFLNDAMEA	953
Chelonia_mydas	VERLPSTIKIDCLIVNCNPVKTVIDDLIQKLYDVLVLSLRKSIQAHLHDISSFLTDATEA	956
Rattus_norvegicus	VERLPSAVKVDCLNINCSPVKTVIDDLIQKLFDLLVLSLKKSIQTHIHEIDTFVTEAMKV	955
Mus_musculus	VERLPSAVKVDCLNINCSPVKTVIDDLIQKLFDLLVLSLKKSIQTHIHEIDTFVTEAMKV	955
Bos_taurus	VERLPSAVKVDCLNINCNPVKTVIDDFIQKLFDVLVLSLKKSIQAHLHEIDTFVTEAMEV	955
Equus_caballus	VERLPSAVKVDCLNINCNPVKTVIDDLIQKLFDMLVLSLRKSIQAHLHEIDTFVTEAMEV	955
Canis_lupus_familiaris	VERLPSAVKVDCLNINCNPVKTVIDDLIQKLFDMLVLSLKKSIQAHLHDIDTFVMEAMEV	955
Homo_sapiens	VERLPSAVKVDCLNINCNPVKTVIDDLIQKLFDLLVLSLKKSIQAHLHEIDTFVTEAMEV	955
Pan_troglodytes	VERLPSAVKVDCLNINCNPVKTVIDDLIQKLFDLLVLSLKKSIQAHLHEIDTFVTEAMEV	955
Macaca_mulatta	VERLPSAVKVDCLNINCNPVKTVIDDLIOKLFDLLVLSLKKSIOAHLHEIDTFVTEAMEI	955
Macaca_fascicularis	VERLPSAVKVDCLNINCNPVKTVIDDLIQKLFDLLVLSLKKSIQAHLHEIDTFVTEAMEI	955
Callithrix_jacchus	VERLPSAVKVDCLNINCNPVKTVIDDLIQKLFELLVLSLKKSIQAHLHEIDTFVTEAMEA	955
		955
Xenopus_tropicalis	AERLPSSIKIDCITINCNPVKSVVDDLIQTLFDSLLISLKKSIQAHLHEIDIFVTEGMEM	
Rhinatrema_bivittatum	AERLPSTIKVDCLTINCNPVKTVIDDLIQKLFDSLLISLKKSIQAHLHDIDSFVTEGMEA	959
	910920930940950960	
	* **:*:**: *::: **: *:: *:*****:*:*:*:*	
Pavo_muticus	LVARPQTVEEISEDNLKYLSLHEQKGEIFLLFQEAEDKNKLLRTVAGAGLDTISNLRATW	1013
Pavo cristatus	LVARPOTVEEISEDNLKYLSLHEOKGEIFLLFOEAEDKNKLLRTVAGAGLDTISNLRATW	1013
Gallus_gallus	LVVRPQTVEEISEDNLKYLNLHEQKGEIFLLFQEAEDKNKLLRTVAGAGLDTISNLRATW	1013
Chelonia mydas		1013
_ -	LIVRPQTVDEIGEDNLKYGNLQEKKAEIFLQFQEAEDKNKLLRTVAGGGLDTISNLRAMW	
Rattus_norvegicus	LTVIPQSVEEIGDTNLQYSNLQDRRPEILPLFQEAEDKNRLLRTVAGGGVETVSNLRAKW	1015
Mus_musculus	LTVIPQSVEEIGDTNVQYSNLQDRRPEILPLFQEAEDKNRLLRTVAGGGVETVSNLRAKW	1015
Bos_taurus	LTIMPQSVEEI <mark>G</mark> NANLQYSKLQERKPEILPLFQEAEDKNRLLRTVA <mark>GGG</mark> LETISNL <mark>K</mark> AKW	1015
Equus_caballus	LTVIPQSVEEIGDANLQYSKLQERKPEILPLFQEAEDKNRLFRTVAGGGLETISNLKAKW	1015
Canis_lupus_familiaris	LTIMPQSVEEIGDANLQYSKLQERKPEILPLFQEAEDKNRLLRTVAGGGLETISNLKAKW	1015
Homo_sapiens	LTIMPQSVEEIGDANLQYSKLQERKPEILPLFQEAEDKNRLLRTVAGGGLETISNLKAKW	1015
Pan troglodytes	LTIMPQSVEEIGDANLRYSKLQERKPEILPLFQEAEDKNRLLRTVAGGGLETISNLKAKW	1015
Macaca_mulatta	LTIMPQSVEEIGDANLRYSKLQERKPEILPLFQEAEDKNRLLRTVAGGGLETISNLKAKW	1015
Macaca_mdracca Macaca fascicularis	LTIMPQSVEEIGDANLRYSKLQERKPEILPLFQEAEDKNRLLRTVAGGGLETISNLKAKW	1015
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Callithrix_jacchus	LTVMPQSVEEIGDANLRYSKLQERKPEILPLFQEAEDKNRLLRTVAGGGLETISNLKAKW	1015
Xenopus_tropicalis	LSSRPQTVEEIGEANMKHAQLKLRKPEILPLFKEAEDKNRLLRSVAGGGLDTIGNLRAKW	1015
Rhinatrema_bivittatum	LSVRPQTVDEIGEANVQHEKLQAKKPEILPLFQEAEDKNRLLRSVAGGGLETISNLKAKW	1019
	970980990100010101020	

Pavo muticus	DKFELMMESHQLMITEQIEVMKGNVMSRINIYLQDLEKFKARWDQLKPSDDVIETGDQDV	1073
Pavo_cristatus	DKFELMMESHOLMITEQIEVMKGNVMSRINIYLODLEKFKARWDOLKPSDDVIETGDODV	1073
Gallus_gallus	DKFELMMESHQLMITEQIEVMKGNVMSRINIYLQDLEKFKARWDQLKPSDDVIETGDQDV	1073
		1075
Chelonia_mydas	DKFELMMESHQLMIKEQIEVMKGNVMSRVNVYLQELEKFKARWDQLKPSDDIIETGHQDM	
Rattus_norvegicus	DKFELMMESHQLMIKDQIEVMKGNVKSRLQIYYQELDKFKARWDQLKPGDDIIETGQQNT	1075
Mus_musculus	DKFELMMESHQLMIKDQIEVMKGNVKSRLQIYYQELDKFKARWDQLKPGDDIIETGQQNT	1075
Bos_taurus	DKFELMMESHQLMIKDQIEVMKGNVKSRLQIYYQELEKFKARWDQLKPGDDVIETGQLST	1075
Equus_caballus	DKFELMMESHQLMIKDQIEVMKGNVKSRLQIYYQELEKFKARWDQLKPGDDVIETGQQNT	1075
Canis lupus familiaris	DKFELMMESHQLMIKDQIEVMKGNVKSRLQIFYQELEKFKARWDQLKPGDDIIETGQQNV	1075
Homo_sapiens	DKFELMMESHQLMIKDQIEVMKGNVKSRLQIYYQELEKFKARWDQLKPGDDVIETGQHNT	1075
Pan troglodytes	DKFELMMESHQLMIKDQIEVMKGNVKSRLQIYYQELEKFKARWDQLKPGDDVIETGQHNT	1075
Macaca_mulatta	DKFELMMESHQLMIKDQIEVMKGNVKSCLQIYYQELEKFKARWDQLKPGDDVIETGQHNT	1075
Macaca_muracca Macaca fascicularis	DKFELMMESHQLMIKDQIEVMKGNVKSCLQIYYQELEKFKARWDQLKPGDDVIETGQHNT	1075
Callithrix_jacchus	DKFELMMESHQLMIKDQIEVMKGNVKSRLQIYFQELEKFKARWEQLKPGDDVIETGQHNT	1075
Xenopus_tropicalis	DKFELMMESHQLMVKEQIEVMKEKVKSRVQIYTQEIEKFKARWDQLKPSNDLIETGEEDA	1075
Rhinatrema_bivittatum	DKFELMMESHQLMVKEQVEIMKANVISRAQIYLQEIEKFKARWEQFKPSDDIIETGQQET	1079
	$\dots 1030 \dots 1040 \dots 1050 \dots 1060 \dots 1070 \dots 1080$	

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Pavo muticus	LEKSAQIIKEKKEEFDELETVKEKLIEECHHFKLEEPDFSLSEVVSQDIKCCAEVWALYE	1133
Pavo_muticus Pavo cristatus	LEKSARIIKEKKEEFDELETVKEKLIEECHHFKLEEPDFSLSEVVSQDIKCCAEVWALYE	1133
Gallus_gallus	LEKSAQIIKEKKEEFDELETIKEKLIEECHHFKLEEPDFSLSKVVSQDIKCCAEVWALYE	1133
		1136
Chelonia_mydas Rattus norvegicus	LEKSAQTIKEKKIEFDELEATKKKLIEDCHHFELEEPDFSLAKAVCRDIESCAEVWALYE	1135
	MDQSAKSIKEKKIEFDDLEVIRKKLVDDCHHFGLEEPNFSLAYSISKDIESCAQIWALYE	
Mus_musculus	MDQSAKSIKEKKIEFDDLEVIRKKLVDDCHHFGLEEPNFSLAYSISKDIESCAQIWALYE	1135
Bos_taurus	LDQSAKSIKEKKVEFDDLEVIRKKLLDDCHHFGLEEPNFSLAYSISKDIESCAQIWALYE	1135
Equus_caballus	LDKSAKSIKEKKIEFDDLEVIRKKLVDDCHHFGLEEPNFSLAYSIHKDIESCAQIWALYE	1135
Canis_lupus_familiaris		1135
Homo_sapiens	LDKSAKLIKEKKIEFDDLEVTRKKLVDDCHHFRLEEPNFSLASSISKDIESCAQIWAFYE	1135
Pan_troglodytes	L <mark>DKSAK</mark> LIKEKKIEFDDLEVTRKKLVDDCHHFRLEEPNFSLASSISKDIESCAQVWAFYE	1135
Macaca_mulatta	L <mark>dksak</mark> likekkiefdelevtrkklyddchhfrleepnfslassiskdiescaqiwafye	1135
Macaca_fascicularis	LDKSAKLIKEKKIEFDELEVTRKKLVDDCHHFRLEEPNFSLASSISKDIESCAQIWAFYE	1135
Callithrix_jacchus	LEKSAKLIKEKKIEFDDLEVTRRKLVDDCRHFRLEEPNFSLACSISKDIESCAQIWAFYE	1135
Xenopus_tropicalis	LVKSAQSIKEKKVEFDELEETKRKLIEDCLHFGLEAPDFFLADEIRIDIEDCTKTWSLYE	1135
Rhinatrema_bivittatum	LEKSAQTIKEKRSEFAELEATKNKLIEDHRHFDLEVPDFSMAGDICRDIESCTKIWSLYE	1139
	$\dots 1090 \dots 1100 \dots 1110 \dots 1120 \dots 1130 \dots 1140$	
_	·* **::: *.***::* * :**:::.**::* * . *:*** * :*:** :*	
Pavo_muticus	EFYQGFQEKAKEDWITFRSKTYLFEEFLFNWHDKIRKMEGHTVMTVKLQKEVDKYKMIIP	1193
Pavo_cristatus	EFYQGFQEKAKEDWITFRSKTYLFEEFLFNWHDKIRKMEGHTVMTVKLQKEVDKYKMIIP	1193
Gallus_gallus	EFYQGFQEKAKEDWITFRSKTYLFEEFLFNWHDKIRKMEGHTVMTVKLQKEVDKYKMIIP	1193
Chelonia_mydas	EFHQGFQEKAKEDWITFRSKTYLFEEFLLNWHDKLRKMEEHTVMTVKLQREVDKYKMTLP	1196
Rattus_norvegicus	EFQQGLQEMAKEDWITYRTKIYIFEEFLINWHERLRKVEEHSVMTVKLQSEVDRYKIIIP	1195
Mus_musculus	EFQQGLQDMAKEDWITYRAKIYLFEEFLINWHERLRKIEEHSVMTVKLQSEVDRYKMIIP	1195
Bos_taurus	EFQQGFQEMANEDWITFRTKTYLFEEFLMNWHDRLRKIEEHSAMTVKLQSEVDKYKIAIP	1195
Equus_caballus	EFQQGFQEMANEDWITFRTKTYLFEEFLMNWHDRLRKIEEHSVMTVKLQLEVDKYKITIP	1195
Canis_lupus_familiaris		1195
Homo_sapiens	EFQQGFQEMANEDWITFRTKTYLFEEFLMNWHDRLRKVEEHSVMTVKLQSEVDKYKTVIP	1195
Pan_troglodytes	EFQQGFQEMANEDWITFRTKTYLFEEFLMNWHDRLRKVEEHSVMTVKLQSEVDKYKIVIP	1195
Macaca_mulatta	EFQQGFQEMANEDWITFRTKTYLFEEFLMNWHDRLRKVEEHSVMTVKLQSEVDKYKIVIP	1195
Macaca_fascicularis	EFQQGFQEMANEDWITFRTKTYLFEEFLMNWHDRLRKVEEHSVMTVKLQSEVDKYKIVIP	1195
Callithrix_jacchus	EFQQGFQEMANEDWITFRSKTYLFEEFLMNWHDRLRNVEEHSAMTVKLQSEVDKYKNVIP	1195
Xenopus_tropicalis	EFYQGFNEKAKEDWISYRSKCYSFEEFILSWHERLRKMEEHTTMSVKLQKEIDRYKTVVP	1195
Rhinatrema_bivittatum	DFYQGFHEKAKEDWITFRSKAYVFEEYLLTWHDKLRKIEEHNTMSVKLQKEVDKYKIVVP	1199
	115011601170118011901200	
_	·******* ************ ****************	
Pavo_muticus	LLKYVRGEHLSPDHWLDLFRLLGLPRGTTLQGLLFGDLLKVTDAIIEKATDLKDLNCRAQ	1253
Pavo_cristatus	LLKYVRGEHLSPDHWLDLFRLLGLPRGTTLQGLLFGDLLKVTDAIIEKATDLKDLNCRAQ	1253
Gallus_gallus	LLKYVRGEHLSPDHWLDLFRLLGLPRGTTLQGLLFGDLLKVTDAIIEKATDLKDLNCRAQ	1253
Chelonia_mydas	VLKYVRGEHLSPDHWLDLFRLLGLPRGTSLENLLFGDLLKVADVIVEKAAALKDLNSRAQ	1256
Rattus_norvegicus	ILKYVRGEHLSPDHWLDLFRLLGLPRGTSLEKLLFGDLLRVADTIVEKASDLKDLNSRAQ	1255
Mus_musculus	ILKYVRGEHLSPDHWLDLFRLLGLPRGTSLEKLLFGDLLRVADTIVEKASELKDLNSRAQ	1255
Bos_taurus	VLKYVRGEHLSPDHWLDLFRLLGLPRGTSLEKLLFGDLLRVADTVVAKASDLKDLNSRAQ	1255
Equus_caballus	VLKYVRGEHLSPDHWLDLFRLLGLPRGTSLEKLLFGDLLRVADTIVAKASDLKDLNSRAQ	1255
	ILKYVRGEHLSPDHWLDLFRLLGLPRGTSLEKLLFGDLLRVADTIVAKASDLKDLNSRAQ	1255
Homo_sapiens	ILKYVRGEHLSPDHWLDLFRLLGLPRGTSLEKLLFGDLLRVADTIVAKAADLKDLNSRAQ	1255
Pan_troglodytes	ILKYVRGEHLSPDHWLDLFRLLGLPRGTSLEKLLFGDLLRVADTIVAKAADLKDLNSRAQ	1255
Macaca_mulatta	ILKYVRGEHLSPDHWLDLFRLLGLPRGTSLEKLLFGDLLRVADTIVAKAADLKDLNSRAQ	1255
Macaca_fascicularis	ILKYVRGEHLSPDHWLDLFRLLGLPRGTSLEKLLFGDLLRVADTIVAKAADLKDLNSRAQ	1255
Callithrix_jacchus	ILKYVRGEHLSPDHWLDLFRLLGLPRGTSLEKLLFGDLLRVADRIVAKAADLKDLNSRAQ	1255
Xenopus_tropicalis	VLKYVRGEHLSQDHWLDLFRLLGLPKGTTLEKLLFGDLLRVADVIVSKASELKELNSRAQ	1255
Rhinatrema_bivittatum	VLKYVRGEHLSQDHWLDLFRLLGLPKGTTLEKLLFGDLLKVADVIVSKAAELKDLNSRAQ	1259
	$\dots 1210 \dots 1220 \dots 1230 \dots 1240 \dots 1250 \dots 1260$	

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	:*******:***:***	
Pavo muticus	GEVTIREALRELELWGVGAVFTLTDYEDSQGKTVMLIKDWKDIVNQVGDHRCLLQSLKDS	1313
Pavo cristatus	GEVTIREALRELELWGVGAVFTLTDYEDSQGKTVMLIKDWKDIVNQVGDHRCLLQSLKDS	1313
Gallus_gallus	GEVTIREALRELELWGVGAVFTLTDYEDSQGKTVMLIKDWKDIVNQVGDHRCLLQSLKDS	1313
Chelonia mydas	GEVTIREALRELELWGVGAVFTLTDYEDSQSRTIKLIKDWKDIVNQVGDNRCLLQSLKDS	1316
Rattus norvegicus	GEVTIREALRELDLWGVGAVFSLIDYEDSQNRTIKLIKDWKDIVNQVGDNRCLLQSLKDS	1315
Mus_musculus	GEVTIREALRELDLWGVGAVFSLIDYEDSQNHTIKLIKDWKDIVNQVGDNRCLLQSLKDS	1315
		1315
Bos_taurus	GEVTIREALRELDLWGVGAVFTLVDYEDSQSRTIKLIKDWKDIVNQVGDNRCLLQSLKDS	
Equus_caballus	GEVTIREALRELDLWGVGAVFTLIDYEDSQSRTIKLIKDWKDIVNQVGDNRCLLQSLKDS	1315
Canis_lupus_familiaris	GEVTIREALRELDLWGVGAVFTLIDYEDSQSRTIKLIKDWKDIVNQVGDNRCLLQSLKDS	1315
Homo_sapiens	GEVTIREALRELDLWGVGAVFTLIDYEDSQSRTMKLIKDWKDIVNQVGDNRCLLQSLKDS	1315
Pan_troglodytes	GEVTIREALRELDLWGVGAVFTLIDYEDSQSRTMKLIKDWKDIVNQVGDNRCLLQSLKDS	1315
Macaca_mulatta	GEVTIREALRELDLWGVGAVFTLIDYEDSQSRTMKLIKDWKDIVNQVGDNRCLLQSLKDS	1315
Macaca_fascicularis	GEVTIREALRELDLWGVGAVFTLIDYEDSQRRTMKLIKDWKDIVNQVGDNRCLLQSLKDS	1315
Callithrix_jacchus	GEVTIREALRELDLWGVGAVFTLIDYEDSQSRTMKLIKDWKDVVNQVGDNRCLLQSLKDS	1315
Xenopus_tropicalis	GEITIREALRELDLWGAGAIFTLTDYEDSHSRTIKLIKDWKDIVNQVGDNRCLLQSLKDS	1315
Rhinatrema bivittatum	GEITIREALRELDLWGVGAVFNLIDYEDSQCRTIKLIKDWKDIVNQVGDNRCLLQSLKDS	1319
	127012801290130013101320	
	******* :**:**:** ** *********** ** *****	
Danie muhi aua		1 2 7 2
Pavo_muticus	PYYKGFEDKVSIWEKKLAELDEFLQNLNLIQRKWVYLEPIFGRGALPKDHARFTRVDEDF	1373
Pavo_cristatus	PYYKGFEDKVSIWEKKLAELDEFLQNLNLIQRKWVYLEPIFGRGALPKDHARFTRVDEDF	1373
Gallus_gallus	PYYKGFEDKVSIWEKKLAELDEFLQNLNLIQRKWVYLEPIFGRGALPKDQARFTRVDEDF	1373
Chelonia_mydas	PYYKGFEDKVSIWEKKLAELDEYLQNLNQIQRKWVYLEPIFGRGALPKEQARFNRVDEDF	1376
Rattus_norvegicus	PYYKGFEDKVSIWERKLAQLDEYLQNLNHIQRKWVYLEPIFGRGALPKEQTRFNKVDEDF	1375
Mus_musculus	PYYKGFEDKVSIWERKLAQLDEYLQNLNHIQRKWVYLEPIFGRGALPKEQTRFNKVDEDF	1375
Bos_taurus	PYYKGFEDKVSIWERKLADLDEYLQNLNHIQRKWVYLEPIFGHGALPKEQTRFNRVDEDF	1375
Equus caballus	PYYKGFEDKVSIWERKLAELDEYLQNLNHIQRKWVYLEPIFGRGALPKEQTRFNRVDEDF	1375
Canis_lupus_familiaris	PYYKGFEDKVSIWERKLAELDEYLQNLNHIQRKWVYLEPIFGRGALPKEQMRFNRVDEDF	1375
Homo sapiens	PYYKGFEDKVSIWERKLAELDEYLONLNHIORKWVYLEPIFGRGALPKEOTRFNRVDEDF	1375
Pan troglodytes	PYYKGFEDKVSIWERKLAELDEYLQNLNHIQRKWVYLEPIFGRGALPKEQTRFNRVDEDF	1375
Macaca_mulatta	PYYKGFEDKVSIWERKLAELDEYLONLNHIORKWVYLEPIFGRGALPKEOTRFNRVDEDF	1375
Macaca fascicularis	PYYKGFEDKVSIWERKLAELDEYLONLNHIORKWVYLEPIFGRGALPKEOTRFNRVDEDF	1375
Callithrix_jacchus	PYYKGFEDKVSIWERKLADLDEYLQNLNHIQRKWVYLEPIFGRGALPKEQTRFNRVDEDF	1375
		1375
Xenopus_tropicalis	PYYKGFEDKVFVWEQKLAELDEYLQYLNQIQRKWVYLEPIFGRGALPREEARFNRVDEDF	1379
Rhinatrema_bivittatum	PYYKGFEDKVSIWEKKLAELDEYLQNLNQIQRKWVYLEPIFGRGALPKEQARFNRVDEDF	13/9
	133013401350136013701380	
	<u>**::</u> **::*.*:* * .::*:::*************	
Pavo_muticus	RSVLSDIKRDNRITSLNARAGIRNTLIAILDQLQRCQRSLNEFLEEKRSAFPRFYFIGDD	1433
Pavo_cristatus	RSVLSDIKRDNRITSLNARAGIRNTLIAILDQLQRCQRSLNEFLEEKRSAFPRFYFIGDD	1433
Gallus_gallus	RSVLSDIKRDNRITSLNARAGIRNTLIAILDQLQRCQRSLNEFLEEKRSAFPRFYFIGDD	1433
Chelonia_mydas	RSIMVDIKRDNRITSLNARTGMRNALITILDQLQRCQKSLNEFLEEKRSAFPRFYFIGDD	1436
Rattus_norvegicus	RSIMMDIRKDSRVTTLTTHAGIRNTLLTILDQLQRCQKSLNEFLEEKRSAFPRFYFIGDD	1435
Mus musculus	RSIMMDIRKDSRVTTLTTHAGIRNTLLTILDQLQRCQKSLNEFLEEKRSAFPRFYFIGDD	1435
Bos_taurus	RSIMLDIKKDNRVTTLTTHAGIRNSLLTILDQLQRCQKSLNEFLEEKRSAFPRFYFIGDD	1435
Equus caballus	RSIMTDIKKONRVTRLTTHAGIRNSLLTILDOLHRCOKSLNEFLEEKRSAFPRFYFIGDD	1435
	RSIMADIKKDSRVTMLTTHAGIRNSLLTILDQLQRCQKSLNEFLEEKRSAFPRFYFLGDD	1435
Homo sapiens	RSIMTDIKKONRVTTLTTHAGIRNSLLTILDQLQRCQKSLNEFLEEKRSAFPRFYFIGDD	1435
Pan_troglodytes	RSIMTDIKKONRVTTLTTHAGIRNSLLTILDQLQRCQKSLNEFLEEKRSAFPRFYFIGDD	1435
Macaca_mulatta	RSIMTDIKKDNRVTTLTTHAGIRNSLLTILDQLQRCQKSLNEFLEEKRSAFPRFYFIGDD	1435
Macaca_fascicularis	RSIMTDIKKDNRVTTLTTHAGIRNSLLTILDQLQRCQKSLNEFLEEKRSAFPRFYFIGDD	1435
Callithrix_jacchus	RSIMTDIKKDSRVTTLTTHAGIRNALLTILDQLQRCQKSLNEFLEEKRSAFPRFYFIGDD	1435
Xenopus_tropicalis	RSIMSDIKRDNRVTLLTSRAGIRNSLITILDQLQRCQKSLNEFLEEKRSAFPRFYFIGDD	1435
Rhinatrema_bivittatum	RSIMSDIKRDNRVTSLTTRVGIRSSLITILDQLQRCQKSLNEFLEEKRSAFPRFYFIGDD	1439
	139014001410142014301440	

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	****:***** * ***:****** ** . * * :*:*::* **::::::::	
Pavo muticus	DLLEILGQSTNPLVIQTHLKKLFAGIHSVSFDEEFKYIVAMKSVEGETVPLRNKVLLSND	1493
Pavo cristatus	DLLEILGOSTNPLVIOTHLKKLFAGIHSVSFDEEFKYIVAMKSVEGETVPLRNKVLLSND	1493
Gallus_gallus	DLLEILGQSTNPLVIQTHLKKLFAGIHSVSFDEEFKYIVAMKSVEGETVPLRNKVLLSND	1493
		1496
Chelonia_mydas	DLLEILGQSTNPSVIQSHLKKLFAGINSVSFDGDFKNIIAMKSLEGEVVPFKNKILLSND	
Rattus_norvegicus	DLLEILGQSTNPSVIQSHLKKLFAGINSVCFDEESKHITAMRSLEGEVVPFKSKVLLSNN	1495
Mus_musculus	DLLEIL <mark>G</mark> QSTNPSVIQSHLKKLFAGINSVCFDEESKHITAMKSLEGEVVPFKSKVLLSNN	1495
Bos_taurus	DLLEILGQSTNPSVIQSHLKKLFAGIHSVCFDEELKHITAMKSLEGEVVPFKNKVLLSSN	1495
Equus_caballus	DLLEILGOSTNPSVIOSHLKKLFAGINSVCFDEESKHITAMKSLEGEVVPFKNKVFLSDN	1495
Canis_lupus_familiaris	DLLEVLGQSTSPAVIQSHLKKLFAGINSVCFDEESKHITAMKSLEGEVVPFKNKILLSNN	1495
Homo sapiens	DLLEILGQSTNPSVIQSHLKKLFAGINSVCFDEKSKHITAMKSLEGEVVPFKNKVPLSNN	1495
Pan_troglodytes	DLLEILGQSTNPSVIQSHLKKLFAGINSVCFDEESKHITAMKSLEGEVVPFKNKVPLSNN	1495
	DLLEILGOSTNPSVIQSHLKKLFAGINSVCFDEESKHITAMKSLEGEVVPFKNKVLLSNN	1495
Macaca_mulatta		
Macaca_fascicularis	DLLEILGQSTNPSVIQSHLKKLFAGINSVCFDEESKHITAMKSLEGEVVPFKNKVLLSNN	1495
Callithrix_jacchus	DLLEILGQSTNPSVIQSHLKKLFAGISSVCFDEESKHITAMKSLEGEVVPFKNKVLISNN	1495
Xenopus_tropicalis	DLLEILGQSTNPAVIQSHLKKLFAGVNSVDFDENFKHIITMKSLDGETVPLKNKILVTSD	1495
Rhinatrema bivittatum	DLLEILGQSTNPAVIQSHLKKLFAGVNSVSFDEHFKHITAMKSLEGETVPLKNKVLVSND	1499
-	$\dots 1450 \dots 1460 \dots 1470 \dots 1480 \dots 1490 \dots 1500$	
	** ** ** ** *** *** *** *** *** ***	
Pavo_muticus	VEVWLNSLALEMKETLKKMLIDCVDAGKQSEGSIDPSLFPSQILSLAEQIQFTEDVENAI	1553
Pavo_cristatus	VEVWLNSLALEMKETLKKMLIDCVDAGKQSEGSIDPSLFPSQILSLAEQIQFTEDVENAI	1553
Gallus_gallus	VEVWLNSLALEMKETLKKMLIDCVDAGKKSEGSIDPSLFPSQILSLAEQIQFTEDVENAI	1553
Chelonia_mydas	VEVWLNRLALEMKDTLKOLLLDCVTAGRRSOGSIDPSLFPSOILSLAEOIOFTEDVETAI	1556
Rattus_norvegicus	VEAWLNDLALEMKQTLKQLLKECVTAGRSSQGAIDPSLFPSQILCLAEQIKFTEDVEDAI	1555
Mus_musculus	VEAWLNDLALEMKQTLKQLLKECVTAGRSSQGAIDPSLFPSQILCLAEQIKFTEDVENAI	1555
Bos taurus	VETWLNDLALEMKQTLKELLTECVTAGRSSQGAIDPSFFPSQILCLAEQIKFTEDVENAI	1555
Equus_caballus	VETWLNDLALEMKQTLKQLLTECVTAGRSSQGAIDPSLFPSQILCLAEQIKFTEDIEDAI	1555
Canis_lupus_familiaris	VETWLNDLALEMKQTLKQLLLECVTAGRSCQGSIDPSLFPSQILCLAEQIKFTEDVENAI	1555
Homo_sapiens	VETWLNDLALEMKKTLEQLLKECVTTGRSSQGAVDPSLFPSQILCLAEQIKFTEDVENAI	1555
Pan_troglodytes	VETWLNDLALEMKKTLEQLLKECVTTGRSSQGAVDPSLFPSQILCLAEQIKFTEDVENAI	1555
Macaca mulatta	VETWL <mark>ND</mark> LALEMKKTLEQLLKECVTTGRSSQGAIDPSLFPSQILCLAEQIKFTEDVENAI	1555
Macaca fascicularis	VETWLNDLALEMKKTLEQLLKECVTTGRSSQGAIDPSLFPSQILCLAEQIKFTEDVENAI	1555
Callithrix_jacchus	veswlndlalemketlkollkecvttgrssogavdpslfpsoilclaeoikftedienai	1555
Xenopus_tropicalis	VEVWLSHLASEMKSTLEKLLVECITAGKKSHSGIDPLOFPSOILCLAEQIOFTEEVEAAI	1555
Rhinatrema_bivittatum	VEDWLNNLATEMKETLKQLLVECITAGRKSQGAMTLHAFPSQILCLAEQILFTEDIENAI	1559
	$\dots 1510 \dots 1520 \dots 1530 \dots 1540 \dots 1550 \dots 1560$	
	··· * * ·· · · * * * * · · · * · · · ·	
Pavo muticus	KNHNLQQLELELMAKLERYTSIDTSMEDTGSTESGILELKLKALILDIIHNIDLVKQLNQ	1613
Pavo cristatus	KNHNLQQLELELMAKLERYTSIDTSMEDTGSTESGILELKLKALILDIIHNIDLVKQLNQ	1613
Gallus_gallus	KSHNLOOLELELMAKLERYTSIDTSMEDTTSTESGILELKLKALILDIIHNIDLVKOLNO	1613
Chelonia mydas	KEHNLOOIELELMAKLEHYTSIDTSMEDPGRADSGILELKLKALILDIIHNIDVVKOLNO	1616
	RDHSLHQIEAQLAAKLERYTSVDTSSEDPGNSESGILELKLKALILDIIHNIDIVKQLNQ	
Rattus_norvegicus		1615
Mus_musculus	KDHSLHQIEAQLVAKLERYTSVDTSSEDPGNSESGILELKLKALILDIIHNIDIVKQLNQ	1615
Bos_taurus	KDHSLHQIETQLVNKLEHYTNIDTISEDPGNTESGILELKLKALILDIIHNIDVVKQLNQ	1615
Equus_caballus	KDHSLHQIETQLVNKLEHYTNIDTSSEDPGNIESGILELKLKALILDIIHNIDVVKQLNQ	1615
Canis lupus familiaris	KDHSLHQIETQLVTKLEYYTSIDTSSEDPGNTESGILELKLKALILDIIHNIDVVKQLNQ	1615
Homo sapiens	KDHSLHQIETQLVNKLEQYTNIDTSSEDPGNTESGILELKLKALILDIIHNIDVVKQLNQ	1615
Pan troglodytes	KDHSLHQIETQLVNKLEQYTNIDTSSEDPGNTESGILELKLKALILDIIHNIDVVKQLNQ	1615
Macaca_mulatta	KDHSLHQIETQLVNKLEQYTNIDTSSEDPGNTESGILELKLKALILDIIHNIDVVKQLNQ	1615
	KDHSLHQIETQLVNKLEQTINIDISSEDPGNTESGILELKLKALILDIIHNIDVVKQLNQ	
Macaca_fascicularis		1615
Callithrix_jacchus	RDHTLHQIETQLVNKLEQYTNINTSSEDPGNTESGILELKLKALILDIIHNIDVVKQLNQ	1615
Xenopus_tropicalis	REQRLHQVDIELMAKLDHYTSIDTSMGDTAGAGILELKLKALILDVIHNIDVVKQLNQ	1613
Rhinatrema_bivittatum	RDHNLYQIEIELMAKLEHYTSIDTSMEDTGSADSGILELKLKALILDVIHNIDVVKQLNK	1619
	157015801590160016101620	

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	*: :.:**.*****: ::.* ::.* ::.********	
Pavo muticus	AQIHSAEDWAW <mark>KKQLR</mark> FYMK-DQKCYVQMVDAELQYTYEYQGNSPKLVYTPLTDKCYLTL	1672
Pavo cristatus	AQIHSAEDWAWKKQLRFYMK-DQKCYVQMVDAELQYTYEYQGNSPKLVYTPLTDKCYLTL	1672
Gallus_gallus	AQIHSAEDWVWKKQLRFYMK-DQKCYVQMVDAEFQYTYEYQGNSPKLVYTPLTDKCYLTL	1672
Chelonia_mydas	AQINSVDDWAWKKQLRFYLK-EQKCYIQMVDAELQYTYEYQGNSPKLVYTPLTDKCYLTL	1675
Rattus_norvegicus	AQVHTTDDWAWKKQVRFYMKSDHTCYVQMVDSELQYTYEYQGNAPKLVYTPLTDKCYLTL	1675
Mus_musculus	VQVHTTDDWAWKKQVRFYMKSDHTCYVQMVDSELQYTYEYQGNAPKLVYTPLTDKCYLTL	1675
Bos taurus	VOIHTTEDWAWKKOVRFYMKSDHTCYVOMVDSELOYTYEYOGNAPKLVYTPLTDKCYLTL	1675
_		
Equus_caballus	VQVHTTEDWAWKKQVRFYMNSDHTCYVQMVDSELQYTYEYQGNAPKLVYTPLTDKCYLTL	1675
Canis_lupus_familiaris	VQVHTTDDWTWKKQVRFYMKSDHTCYVQMVDSELQYTYEYQGNAPKLVYTPLTDKCYLTL	1675
Homo_sapiens	IQVHTTEDWAWKKQLRFYMKSDHTCCVQMVDSEFQYTYEYQGNASKLVYTPLTDKCYLTL	1675
Pan_troglodytes	IQVHTTEDWAWKKQLRFYMKSDHTCCVQMVDSEFQYTYEYQGNASKLVYTPLTDKCYLTL	1675
Macaca_mulatta	IQVHTTEDWAWKKQLRFYMKSDHTCCVQMVDSEFQYTYEYQGNASKLVYTPLTDKCYLTL	1675
Macaca_fascicularis	IQVHTTEDWAWKKQLRFYMKSDHTCCVQMVDSEFQYTYEYQGNASKLVYTPLTDKCYLTL	1675
Callithrix_jacchus	IQVHTTEDWAWKKQLRFYMNSDHTCCVQMVDSEFQYTYEYQGNASKLVYTPLTDKCYLTL	1675
Xenopus_tropicalis	AQVYSTEDWAWKKQLRFYLKPDKKCYVKMVDAEMEYTYEYQGNAPKLVYTPLTDKCYLTL	1673
Rhinatrema_bivittatum	AQIHSTEDWVWKKQVRFYMKQDQKCYIQMVDAELRYTYEYQGNAPKLVYTPLTDKCYLTL	1679
	163016401650166016701680	
	.*************	
Pavo muticus	TQAMKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1732
Pavo cristatus	TOAMKMGLGGNPYGPAGTGKTESVKALGGLLGROVLVFNCDEGIDVKSMGRIFVGLVKCG	1732
Gallus_gallus	TQAMKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1732
Chelonia mydas	TQAMKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1735
— -		
Rattus_norvegicus	TQAMKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1735
Mus_musculus	TQAMKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1735
Bos_taurus	TQAMKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1735
Equus_caballus	TQAMKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1735
Canis_lupus_familiaris	TQAMKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1735
Homo_sapiens	TQAMKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1735
Pan_troglodytes	TQAMKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1735
Macaca_mulatta	TQAMKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1735
Macaca_fascicularis	TQAMKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1735
Callithrix_jacchus	TQAMKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1735
Xenopus_tropicalis	TOALKMGLGGNPYGPAGTGKTESVKALGGLLGROVLVFNCDEGIDVKSMGRIFVGLVKCG	1733
Rhinatrema_bivittatum	TQAIKMGLGGNPYGPAGTGKTESVKALGGLLGRQVLVFNCDEGIDVKSMGRIFVGLVKCG	1739
	169017001710172017301740	_, _,

Pavo muticus	AWGCFDEFNRLEEAVLSAVSMQIQTIQHALKKHSSSCELLGKKIEMDHNSGIFITMNPAG	1792
_		1792
Pavo_cristatus	AWGCFDEFNRLEEAVLSAVSMQIQTIQHALKKHSSSCELLGKKIEMDHNSGIFITMNPAG	_
Gallus_gallus	AWGCFDEFNRLEEAVLSAVSMQIQTIQHALKKHSSTCELLGKKIEMDHNSGIFITMNPAG	1792
Chelonia_mydas	AW <mark>GCFDEFNR</mark> LEEAVLSAVSMQIQTIQHALKKHRPVCELLGKEVEMDHNSGIFITMNPAG	1795
Rattus_norvegicus	AWGCFDEFNRLEEAVLSAVSMQIQTIQDALKNHRSVCELLGKEVEINANSGIFITMNPAG	1795
Mus_musculus	AWGCFDEFNRLEEAVLSAVSMQIQTIQDALKNHRTVCELLGKEVEINANSGIFITMNPAG	1795
Bos_taurus	AWGCFDEFNRLEESVLSAVSMQIQTIQDALKNHRTVCELLGKEVEINSNSGIFITMNPAG	1795
Equus_caballus	AWGCFDEFNRLEESVLSAVSMQIQTIQDALKNHRTVCELLGKEVEINSNSGIFITMNPAG	1795
	AWGCFDEFNRLEESVLSAVSMQIQTIQDALKNHRTVCELLGKEVEINSNSGIFITMNPAG	1795
Homo_sapiens	AWGCFDEFNRLEESVLSAVSMQIQTIQDALKNHRTVCELLGKEVEVNSNSGIFITMNPAG	1795
Pan_troglodytes	AWGCFDEFNRLEESVLSAVSMQIQTIQDALKNHRTVCELLGKEVEVNSNSGIFITMNPAG	1795
Macaca mulatta	AWGCFDEFNRLEESVLSAVSMQIQTIQDALKNHRTVCELLGKEVEVNSNSGIFITMNPAG	1795
Macaca fascicularis	AWGCFDEFNRLEESVLSAVSMQIQTIQDALKNHRTVCELLGKEVEVNSNSGIFITMNPAG	1795
Callithrix_jacchus	AWGCFDEFNRLEESVLSAVSMOIQTIQDALKNHRTVCELLGKEVEINSNSGIFITMNPAG	1795
Xenopus_tropicalis	AWGCFDEFNRLEEAVLSAVSMQIQTIQDALKNHRSSCDLLGKEVALDPNSGIFITMNPAG	1793
Rhinatrema bivittatum	AWGCFDEFNRLEEAVLSAVSMQIQTIQDALKHHRLSCDLLGKEVELDPNSGIFITMNPAG	1799
MILITAGE GING_DIVICCACUIII	175017601770178017901800	1199

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	*.******************************	
Pavo muticus	KDYGGRQKLPDNLKQLFRPVAMTHPDNELIAEVILYSEGFKYAKTLGRKLVAIFNLAREL	1852
Pavo cristatus	KDYGGROKLPDNLKOLFRPVAMTHPDNELIAEVILYSEGFKYAKTLGRKLVAIFNLAREL	1852
Gallus_gallus	KDYGGRQKLPDNLKQLFRPVAMTHPDNELIAEVILYSEGFKYAKTLGRKLVAIFNLAREL	1852
Chelonia_mydas	KGYGGROKLPDNLKOLFRPVAMTRPDNELIAEVILYSEGFKDAKTLGRKLVAIFNLAREL	1855
Rattus_norvegicus	KGYGGRQKLPDNLKQLFRPVAMSRPDNDLIAEVILYSEGFKDAKELGRKLVAIFNLSREL	1855
Mus_musculus	KGYGGRQKLPDNLKQLFRPVAMSRPDNDLIAEVILYSEGFKDAKELGRKLVAIFNLSREL	1855
Bos_taurus	KGYGGRQKLPDNLKQLFRPVAMSRPDNELIAEVILYSEGFKDAKVLGRKLVAIFNLSREL	1855
Equus_caballus	KGYGGRQKLPDNLKQLFRPVAMSRPDNELIAEVILYSEGFKDAKVLGTKLVAIFNLSREL	1855
Canis_lupus_familiaris	KGYGGRQKLPDNLKQLFRPVAMSRPDNELIAEVILYSEGFKDAKVLGRKLVAIFNLSREL	1855
Homo sapiens	KGYGGRQKLPDNLKQLFRPVAMSHPDNELIAEVILYSEGFKDAKVLSRKLVAIFNLSREL	1855
Pan_troglodytes	KGYGGROKLPDNLKOLFRPVAMSRPDNELIAEVILYSEGFKDAKVLGRKLVAIFNLSREL	1855
Macaca_mulatta	KGYGGROKLPDNLKOLFRPVAMSRPDNELIAEVILYSEGFKDAKVLGRKLVAIFNLSREL	1855
Macaca fascicularis	KGYGGROKLPDNLKOLFRPVAMSRPDNELIAEVILYSEGFKDAKVLGRKLVAIFNLSREL	1855
		1855
Callithrix_jacchus	KGYGGRQKLPDNLKQLFRPVAMSRPDNELIAEVILYSEGFKDAKLLGRKLVAIFNLSREL	
Xenopus_tropicalis	KGYGGRQKLPDNLKQLFRPVAMSRPDNELIAEVILYSEGFKDAKNLGRKLVAIFNLAREL	1853
Rhinatrema_bivittatum	KGYGGRQKLPDNLKQLFRPVAMSHPDNELIAEVILYSEGFKDAKTLGRKLVAIFNLAREL	1859
	181018201830184018501860	

Pavo muticus	LTPQQHYDWGLRALKTVLRGCGSLLHQLKRSAEKQEINESHLVVQALRLNTMSKLTFADC	1912
Pavo cristatus	LTPQQHYDWGLRALKTVLRGCGSLLHQLKRSAEKQEINESHLVVQALRLNTMSKLTFADC	1912
_		1912
Gallus_gallus	LTPQQHYDWGLRALKTVLRGCGSLLRQLKRSAEKQEINESHLVVQALRLNTMSKLTFADC	_
Chelonia_mydas	LTPQQHYDWGLRALKTALRGCGNLLRHLKKNGMKEKINESHIVVQALRLNTMSKLTFADC	1915
Rattus_norvegicus	LTPQQHYDWGLRALKTVLRGSGNLLRQLKKSGTKQDVNENHIVVQALRLNTMSKFTFADC	1915
Mus_musculus	L <mark>TPQQHYDWGLR</mark> AL <mark>KT</mark> VL <mark>RGSGN</mark> LLRQLKKNSTKQDVNENHIVVQALRLNTMSKFTFADC	1915
Bos_taurus	LTPQQHYDWGLRALKTVLRGSGNLLRQLKKTSVKQNVNESHIVVQALRLNTMSKFTFADC	1915
Equus caballus	LTPQQHYDWGLRALKTVLRGSGNLLRHLKKSGIKQKVNESHIVVQALRLNTMSKFTFADC	1915
Canis_lupus_familiaris	LTPQQHYDWGLRALKTVLRGSGGLLRQLKKTGMKQNVDESHIVVQALRLNTMSKFTFADC	1915
Homo sapiens	LTPQQHYDWGLRALKTVLRGSGNLLRQLNKSGTTQNANESHIVVQALRLNTMSKFTFTDC	1915
Pan troglodytes	LTPQQHYDWGLRALKTVLRGSGNLLRQLKKSGTTQNANESHIVVQALRLNTMSKFTFTDC	1915
		1915
Macaca_mulatta	LTPQQHYDWGLRALKTVLRGSGNLLRQLKKSGTTQNANESHIVVQALRLNTMSKFTFTDC	
Macaca_fascicularis	L <mark>TPQQHYDWGLR</mark> ALKTVLRGSGNLLRQLKKSGTTQNANESHIVVQALRLNTMSKFTFTDC	1915
Callithrix_jacchus	LTPQQHYDWGLRALKTVLRGSGNLLRQLKKNDTAQNANEGHIVVQALRLNTMSKFTFTDC	1915
Xenopus_tropicalis	L <mark>TPQQHYDWGLR</mark> ALKTVLRGCGNLLHQLKKNGKETAINESHMVVQALRLNTMSKL <mark>T</mark> FADC	1913
Rhinatrema_bivittatum	L <mark>TPQQHYDWGLRALKT</mark> VL <mark>RGCGNLLRQVKKTGMKETINENHIVVQALRLNTMSK</mark> LTFADC	1919
	$\dots 1870 \dots 1880 \dots 1890 \dots 1900 \dots 1910 \dots 1920$	
	* ***:**: * :*:*** :* **:***. *:* .*:****:*** **	
Pavo muticus	ARFDALVKDVFAGIDFKDVEYAKLTKALQEAFEEARLEIINTQVKKALELYEQLSQRMGV	1972
_	ARFDALVKDVFAGIDFKDVEYAKLTKALOEAFEEARLEIINTOVKKALELYEOLSORMGV	1972
Pavo_cristatus		_
Gallus_gallus	ARFDALVKDVFPGTDFKDVEYAKLTAALQEAFEEARLEIINTQVKKALELYEQLRQRMGV	1972
Chelonia_mydas	ARFDALVKDVFPGIDFKDVEYAELTTALQQVFEEANLEIINTQIKKALELYEQLRQRMGV	1975
Rattus_norvegicus	TRFDALIKDVFPGIDFKEVEYNELSSALKQVFEEANYEVIPNQMKKALELYEQLRQRTGV	1975
Mus_musculus	TRFDALIKDVFPGIDFKEVEYDELSSALKQVFEEANYEVIPNQMKKALELYEQLRQRTGV	1975
Bos taurus	TRFDALIKDVFPGIDFKEVEYDELSAALKQVFEEANYEIISNQIKKALELYEQLRQRMGV	1975
Equus caballus	TRFDALIKDVFPGIDFKEVEYGELSAALKOVFEEANYEIIPNOIKKALELYEOLCORMGV	1975
	LRFDALIKDVFPGIDFKEVEYGELSSALQQVFEEANYEIIPNQIKKALELYEQLRQRMGV	1975
Homo_sapiens	TRFDALIKDVFPGIELKEVEYDELSAALKQVFEEANYEIIPNQIKKALELYEQLCQRMGV	1975
Pan troglodytes	TRFDALIKDVFPGIELKEVEYDELSAALKQVFEEANYEIIPNQIKKALELYEQLCQRMGV	
		1975
Macaca_mulatta	TRFDALIKDVFPGIELKEVEYDELSAALKQVFEEANYEIIPNQIKKALELYEQLCQRMGV	1975
Macaca_fascicularis	TRFDALIKDVFPGIELKEVEYDELSAALKQVFEEANYEIIPNQIKKALELYEQLCQRMGV	1975
Callithrix_jacchus	TRFDALIKDVFPGIGFKEVEYDELRAALKQVFEEANYEIIPNQIKKALELYEQLCQRMGV	1975
Xenopus_tropicalis	SRCDALIKDVFPGIDFKDVEYMELSAALQQAFEEANLEIIPSQIKKALELYEQLRQRMGV	1973
Rhinatrema_bivittatum	SRCDALIKDIFRGIDFKDVEYTELNTALQHVFEEANLEIIPSQIKKALEFYEQLRQRMGV	1979
_	193019401950196019701980	

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Pavo muticus	VIVGPSGAGKSTLWQMLKAALGKTGKVVKQYTVNPKAMPRHQLLGHIDMDTREWSDGVLT	2032
Pavo_cristatus	VIVGPSGAGKSTLWQMLKAALGKTGKVVKQYTVNPKAMPRHQLLGHIDMDTREWSDGVLT	2032
Gallus_gallus	VIV <mark>GPSGAGKSTLWQMLKAALGKTGKVVKQYTMNPKAMPRHQLLGHIDMDTREWSDG</mark> VLT	2032
Chelonia_mydas	VIV <mark>GPSGAGKSTLWQMLRTALGKTGKVVKQYTMNPKAMPRHQLLGHIDMDTREWSDG</mark> VLT	2035
Rattus_norvegicus	VIV <mark>GPSGAGKSTLWRMLRAALCKIGKVVKQYTMNPKAMPRHQLLGHIDMDTREWSDG</mark> VLT	2035
Mus_musculus	VIV <mark>GPSGAGKSTLWRMLR</mark> AALC <mark>KIGKVVKQYTMNPKAMPRHQLLGHIDMDTREWSDG</mark> VLT	2035
Bos_taurus	VIVGPSGAGKSTLWRMLRAALCKTGRVVKQYTMNPKAMPRHQLLGHIDMDTREWSDGVLT	2035
Equus_caballus	VIV <mark>GPSGAGKSTLWRMLR</mark> AALC <mark>KIGKVVKQYTMNPKAMPRHQ</mark> LL <mark>GHIDMDTREWSDG</mark> VLT	2035
Canis_lupus_familiaris	VIV <mark>GPSGAGKSTLWRMLR</mark> AALC <mark>RTGRVVKQYTMNPKAMPRHQLLGHIDMDTREWSDG</mark> VLT	2035
Homo_sapiens	VIV <mark>GPSGAGKSTLWRMLR</mark> AALC <mark>KTGKVVKQYTMNPKAMPRYQ</mark> LL <mark>GHIDMDTREWSDG</mark> VL <mark>T</mark>	2035
Pan_troglodytes	VIVGPSGAGKSTLWRMLRAALCKTGKVVKQYTMNPKAMPRYQLLGHIDMDTREWSDGVLT	2035
Macaca_mulatta	VIV <mark>GPSGAGKSTLWRMLR</mark> AALC <mark>KIGKVVKQYTMNPKAMPRYQLLGHIDMDTREWSDG</mark> VL <mark>T</mark>	2035
Macaca_fascicularis	VIVGPSGAGKSTLWRMLRAALCKIGKVVKQYTMNPKAMPRYQLLGHIDMDTREWSDGVLT	2035
Callithrix_jacchus	VIVGPSGAGKSTLWRMLRAALCKTGKVVKQYTMNPKAMPRYQLLGHIDMDTREWSDGVLT	2035
Xenopus_tropicalis	VIVGPSGAGKSTLWRMLRAALNKIGKVVKQYTMNPKAMPRHQLLGHIDMDTREWSDGVLT	2033
Rhinatrema_bivittatum	VIVGPSGAGKSTLWQMLRAALNKVGKVVKKYTMNPKAMPRRQLLGHIDMDTREWSDGVLT	2039
	199020002010202020302040	
	·****** · * ·*************************	
Pavo_muticus	NSARQVVREPQDTTSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGSNVNFIFE	2092
Pavo_cristatus	NSARQVVREPQDTTSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGSNVNFIFE	2092
Gallus_gallus	NSARQVVREPQGTTSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGSNVNFIFE	2092
Chelonia_mydas	SSARQVVREPQDVNSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGPNVNFVFE	2095
Rattus_norvegicus	NSARQVVREPQDVSSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGPNVNFVFE	2095
Mus_musculus	NSARQVVREPQDVSSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGPNVNFVFE	2095
Bos_taurus	NSARQVVREPQDVSSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGQNVNFLFE	2095 2095
Equus_caballus	NSARQVVREPQDVSSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGPNVNFVFE NSARQVVREPQDVSSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGLNVNFVFE	2095
Canis_lupus_familiaris	NSARQVVREPQDVSSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGLNVNFVFE NSARQVVREPQDVSSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGPNVNFVFE	2095
Homo_sapiens Pan troglodytes	NSARQVVREPQDVSSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGPNVNFVFE NSARQVVREPQDVSSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGPNVNFVFE	2095
Macaca mulatta	NSARQVVREPQDVSSWIICDGDIDPEWIESLNSVLDDNRLLIMPSGERIQFGPNVNFVFE NSARQVVREPQDVSSWIICDGDIDPEWIESLNSVLDDNRLLIMPSGERIQFGPNVNFVFE	2095
Macaca_mulatta Macaca fascicularis	NSARQVVREPODVSSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIOFGPNVNFVFE	2095
Callithrix_jacchus	NSARQVVREPODVSSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIOFGPNVNFVFE	2095
Xenopus_tropicalis	NSARQVVRESQDINSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIQFGPNVNFVFE	2093
Rhinatrema_bivittatum	NSAROVVREPOEVNSWIICDGDIDPEWIESLNSVLDDNRLLTMPSGERIOFGPNVNFVFE	2099
Milliaci ema_Diviccacum	205020602070208020902100	2099
	203020002070200020902100	
	::***********************	
Pavo muticus	THDLSCASPATISRMGMIFLSDEDTDLNSLIKSWLRSQPEECRYNLENWIGDYFEKALNW	2152
Pavo cristatus	THDLSCASPATISRMGMIFLSDEDTDLNSLIKSWLRSOPEECRYNLENWIGDYFEKALNW	2152
Gallus gallus	THNLSCASPATISRMGMIFLSDEDTDLNSLIKSWLRSQPEECRYNLENWIGDYFEKALNW	2152
Chelonia_mydas	THDLSCASPATISRMGMIFLSDEDTDLNSLIKSWLRNQPEECRHNLENWIGDYFEKALNW	2155
Rattus_norvegicus	THDLSCASPATISRMGMIFLSDEETDLNSLIKSWLRNQPVEYRSNLENWIGDYFSKALQW	2155
Mus_musculus	THDLSCASPATISRMGMIFLSDEETDLNSLIKSWLRNQPLEYRSNLENWIGDYFSKALQW	2155
Bos_taurus	THDLSCASPATISRMGMIFLSDEETDLNSLIKSWLRNQPPTYRNNLENWIGDYFEKALQW	2155
Equus_caballus	THDLSCASPATISRMGMIFLSDEETDLNSLIKSWLRNQPPKYRNNLENWIGDYFEKALQW	2155
Canis_lupus_familiaris		2155
Homo_sapiens	THDLSCASPATISRMGMIFLSDEETDLNSLIKSWLRNQPAEYRNNLENWIGDYFEKALQW	2155
Pan_troglodytes	THDLSCASPATISRMGMIFLSDEETDLNSLIKSWLRNQPAEYRNNLENWIGDYFEKALQW	2155
Macaca_mulatta	THDLSCASPATISRMGMIFLSDEETDLNSLIKSWLRNQPAEYRNSLENWIGDYFEKALQW	2155
Macaca_fascicularis	THDLSCASPATISRMGMIFLSDEETDLNSLIKSWLRNQPAEYRNSLENWIGDYFEKALQW	2155
Callithrix_jacchus	THDLSCASPATISRMGMIFLSDEETDLNSLIKSWLRNQPAKYRNNLENWIGDYFEKALQW	2155
Xenopus_tropicalis	THDLSSASPATISRMGMIFLSDENTDLQSLIQSWLRGQPANVRHNLENWIGDYFEKALNW	2153
Rhinatrema_bivittatum	THDLSSASPATISRMGMIFLSDEDTDLNSLIKSWLRSQPENCRHNLENWIGDYFERALNW	2159
	211021202130214021502160	

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	*:***:*************	
Pavo muticus	VVKQNDFVVETSLVGTVMNGLSHLRGCTDRGQFIINLLRGLGGNLKMSSRVEFAKQIFTW	2212
Pavo cristatus	VVKQNDFVVETSLVGTVMNGLSHLRGCTDRGQFIINLLRGLGGNLKMSSRVEFAKQIFTW	2212
Gallus_gallus	VVKQNDFVVETSLVGTVMNGLSHLRGCTDRGQFIINLLRGLGGNLNMSSRLEFAKQIFTW	2212
Chelonia mydas	VLKONDYVVETSLVGTVMNGLSHLRGCTDRGQFIISLMRGLGGNLNMKSRLEFTKEIFNW	2215
Rattus norvegicus	VLKQNDYVVETSLVGTVMNGLSHLHGCKYHDQFIINLIRGLGGNLNMKSRLEFTKEVFNW	2215
Mus_musculus	VLKONDYVVETSLVGTVMNGLSHLHGCKYHDOFIINLIRGLGGNLNMKSRLEFTKEVFNW	2215
Bos taurus	VLKONDYVVETSLVGTVMNGLSHLHGCRDHDOFIINLIRGLGGNLNLKSRLEFTKEVFNW	2215
Equus_caballus	VLKQNDYVVETSLVGTVMNGLSHLHGCKDHDQFIINLIRGLSGNLNMKSRLEFTKEVFNW	2215
Canis lupus familiaris		2215
Homo sapiens	VLKQNDYVVETSLVGTVMNGLSHLHGCRDHDEFIINLIRGLGGNLNMKSRLEFTKEVFHW	2215
Pan troglodytes	VLKQNDYVVETSLVGTVMNGLSHLHGCRDHDEFIINLIRGLGGNLNMKSRLEFTKEVFHW	2215
	VLKQNDIVVETSLVGTVMNGLSHLHGCRDHDEFIINLIRGLGGNLNMKSRLEFTKEVFHW	2215
Macaca_mulatta Macaca fascicularis	VLKQNDIVVETSLVGTVMNGLSHLHGCRDHDEFIINLIRGLGGNLNMKSRLEFTKEVFHW VLKQNDYVVETSLVGTVMNGLSHLHGCRDHDEFIINLIRGLGGNLNMKSRLEFTKEVFHW	2215
<u> </u>		2215
Callithrix_jacchus	VLKQNDYVVETSLVGTVMNGLSHLRGCRDHDQFIINLIRGLGGNLMMKSRLEFTKEVFNW	_
Xenopus_tropicalis	VL <mark>KQNDFVVETSLIGT</mark> VM <mark>NGLSHLHGCTDRGQ</mark> FIVSLIH <mark>GLGGNLMMKSRNE</mark> FAKEVFSW	2213
Rhinatrema_bivittatum	VLKQNDFVVETSLVGTVMNGLSHLHGCTDRGQFVISLIRGLGGNLNMKSRQEFAKEIFNW	2219
	$\dots 2170 \dots 2180 \dots 2190 \dots 2200 \dots 2210 \dots 2220$	
	**** * . *.** ** . **** **	
Pavo muticus	AQESPPDPRKPLDTYYDTDRGQLMLFRLKKPENLTADNFSNLQTLPVIQTPDMQRGLDYF	2272
—	AQESPPOPRKPLDTYYDTDRGQLMLFRLKKPENLTADNFSNLQTLPVIQTPDMQRGLDYF	2272
Pavo_cristatus		
Gallus_gallus	AQESPPDPRKPLDTYYDADSGQLMLYRLKKPENLIADNFSNLQTLPVIQIPDMQRGLDYF	2272
Chelonia_mydas	ARESPPDPRKPLDTYYDADTGHLMSYQLKKPIHLTADDFSNPRTLPVIQTPNMQRGLDYF	2275
Rattus_norvegicus	ARETPPDSHRPMDTYFDCDRGQLASYVLKKPESLTADDFSSGHSLPVIQTPDMQRGLDYF	2275
Mus_musculus	ARETPPDSHRPMDTYYDCDRGQLASYMLKKPESLTADDFSNGHILPVIQTPDMQRGLDYF	2275
Bos_taurus	ARQSPPDPHKPLDTYYDSSRGRLASYVLKKPENLTADDFSSSHTLPVIQTPDMQRGLDYF	2275
Equus_caballus	ARESPPDPHKPMDTYYDSSRGRLASYVLKKPENLTADNFNNGQSLPVIQTPDMQRGLDYF	2275
Canis_lupus_familiaris		2275
Homo_sapiens	ARESPPDFHKPMDTYYDSTRGRLATYVLKKPEDLTADDFSNGLTLPVIQTPDMQRGLDYF	2275
Pan_troglodytes	ARESPPDFHKPMDTYYDSTRGRLATYVLKKPENLTADDFSNGLTLPVIQTPDMQRGLDYF	2275
Macaca_mulatta	ARESPPDFHKPMDTYYDSTRGRLATYALKKPENLTADDFSNGLTLPVIQTPDMQRSLDYF	2275
Macaca_fascicularis	ARESPPDFHKPMDTYYDSTRGRLATYALKKPENLTADDFSNGLTLPVIQTPDMQRSLDYF	2275
Callithrix_jacchus	ARESPPDFHKPMDTYYDSNTGRLATYVLKKPENLTADDFSNGLTLPVIQTPDMQRSLDYF	2275
Xenopus_tropicalis	ARESPPDPRKPLDTFYDAKTGRLMTYSLEKPHNLTTEDFCNPQTLPVIRTPDIQRGLDYF	2273
Rhinatrema_bivittatum	SRESPPDPRKPLETYYDLKLGSLMTYQLEKPENLTSEDFSNPQTLPVIQTPDMQRNLDYF	2279
	$\dots 2230 \dots 2240 \dots 2250 \dots 2260 \dots 2270 \dots 2280$	

Dania		2332
Pavo_muticus	RPWLDINNKEPFLLVGPEGCGKGMLLRYAFSQLRSTQIAAIHCSAQTTSQHLIQKLSQTC	2332
Pavo_cristatus	RPWLDINNKEPFLLVGPEGCGKGMLLRYAFSQLRSTQIAAIHCSAQTTSQHLIQKLSQTC RPWLDFNNKEPFLLVGPEGCGKGMLLRYAFSQLRSTQIAAIHCSAQTTSQHVIQKLIQTC	2332
Gallus_gallus		
Chelonia_mydas	RPWLDFDNKQPFLLVGPEGCGKGMLLRYAFSQLRSTQIATVHCSAQTTSRHLLQKLNQTC	2335
Rattus_norvegicus	KPWLSSETKQPFILVGPEGCGKGMLLRYAFSQLRSTEIATIHCSAQTTSRHLLQKLSQTC	2335
Mus_musculus	KPWLSSDTKQPFILVGPEGCGKGMLLRYAFSQLRSTEIATIHCSAQTTSRHLLQKLSQTC	2335
Bos_taurus	RPWLSPDTKQPFILVGPEGCGKGMLLRYAFSQLRSTYIATVHCSTQTTSQHLLQKLSQTC	2335
Equus_caballus	KPWLSSDTKQPFILVGPEGCGKGMLLKYAFSQLRSTQIATVHCSAQTTSRHLLQKLSQTC	2335
	KPWLSSDTKQPFILVGPEGCGKGMLLRYAFSQLRSTQIATVHCSAQTTSRHLLQKLSQTC	2335
Homo_sapiens	KPWLSSDTKQPFILVGPEGCGKGMLLRYAFSQLRSTQIATVHCSAQTTSRHLLQKLSQTC	2335
Pan_troglodytes	KPWLSSDTKQPFILVGPEGCGKGMLLRYAFSQLRSTQIATVHCSAQTTSRHLLQKLSQTC	2335
Macaca_mulatta	KPWLSSNTKQPFILVGPEGCGKGMLLRYAFSQLRSTQIATVHCSAQTTSRHLLQKLSQTC	2335
Macaca_fascicularis	KPWLSSNTKQPFILVGPEGCGKGMLLRYAFSQLRSTQIATVHCSAQTTSRHLLQKLSQTC	2335
Callithrix_jacchus	KPWLSSDTKQPFILVGPEGCGKGMLLRYAFSQLRSTQIATVHCSAQTTSRHLLQKLSQTC	2335
Xenopus_tropicalis	KPWLGCDTKQPFILVGPEGCGKGMLLRYAFSQLRSTHIATVHCSAQTSSRHVLQKLTQTC	2333
Rhinatrema_bivittatum	KPWLGLDTKQPFILVGPEGCGKGLLLRYAFSQLRSTQIATVHCSAQTSSHHVLQKLSQTC	2339
	22902310232023302340	

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	·**·**********************************	
Pavo muticus		2392
Pavo_cristatus	IVISTNIGRVFRPKDCERLVLYLKDINLPKPDKWGTSTLVAFLQQVLTYQGFYDENLEWV	2392
Gallus_gallus	IVISTNTGRVFRPKDCERLVLYLKDINLPKPDKWGTSTLVAFLQQVLTYQGFYDENLEWV	2392
Chelonia_mydas	MVISTNTGRVYRPKDCERLVLYLKEINLPKPDKWGTSTLVAFLQQILTYQGFYDENLEWV	2395
Rattus_norvegicus	MVISTNTGRVYRPKDCERLVLYLKDINLPKLDKWGTSTLVAFLQQVLTYQGFYDENLEWV	2395
Mus_musculus	MVISTNTGRVYRPKDCERLVLYLKDINLPKLDKWGTSTLVAFLQQVLTYQGFYDENLEWV	2395
Bos_taurus	MVISTNTGRVYRPKDCERLVLYLKDINLPRLDKWGTSTLIAFLQQVLTYQGFYDENLEWV	2395
Equus_caballus	MVISTNTGRVYRPKDCERLVLYLKDINLPKLDKWGTSTLVAFLOOVLTYOGFYDENLEWV	2395
Canis lupus familiaris	MVITTNTGRVYRPKDCERLVLYLKDINLPKLDKWGTSTLVAFLQQVLTYQGFYDENLEWV	2395
Homo sapiens	MVISTNTGRVYRPKDCERLVLYLKDINLPKLDKWGTSTLVAFLQQVLTYQGFYDENLEWV	2395
	MVISTNTGRVYRPKDCERLVLYLKDINLPKLDKWGTSTLVAFLQQVLTYQGFYDENLEWV	2395
Pan_troglodytes		
Macaca_mulatta	MVISTNTGRVYRPKDCERLVLYLKDINLPKLDKWGTSTLVAFLQQVLTYQGFYDENLEWV	2395
Macaca_fascicularis	MVISTNTGRVYRPKDCERLVLYLKDINLPKLDKWGTSTLVAFLQQVLTYQGFYDENLEWV	2395
Callithrix_jacchus	MVISTNTGRVYRPKDCERLVLYLKDINLPKLDKWGTSTLVAFLQQVLTYQGFYDENLEWV	2395
Xenopus_tropicalis	LVISTNTGRVYRPKDCERLVLYLKDINLPKPDKWGTSTLVAFLQQVLTYHGFYDDNLEWV	2393
Rhinatrema bivittatum	LVISTNTGRVYRPKDCERLVLYLKDINLPKPDKWGTSTLVAFLQQVLTYHGFYDENLEWV	2399
	235023602370238023902400	
_	<u>*************************************</u>	
Pavo_muticus	GLENIQIVASMTAGGTLGRHKLTSRFTSIVRLCAVDYPDRDQLQTIYSAYLEPVLQKNLK	2452
Pavo_cristatus	GLENIQIVASMTAGGTLGRHKLTSRFTSIVRLCAVDYPDRDQLQTIYSAYLEPVLQKNLK	2452
Gallus_gallus	GLENIQIVASMTAGGTLGRHKLTSRFTSIVRLCAVDYPDRDQLQTIYSAYLEPVLQKNLK	2452
Chelonia_mydas	GLENIQIVASMSAGGTLGRHKLTSRFTSVVRLCAIDYPERDQLQTIYSAYLEPVLHKNLK	2455
Rattus norvegicus	GLENIQIVASMSAGGRLGRHKLTTRFTSIVRLCAVDYPEREQLQTIYGAYLEAVLHKNLK	2455
Mus_musculus	GLENIQIVASMSAGGRLGRHKLTTRFTSIVRLCAIDYPEREQLQTIYGAYLEAVLHKNLK	2455
Bos_taurus	GLENIQIVASMSAGGRLGRHQLTTRFTSIVRLCAIDYPEREQLQTIYGAYLEPVLHKNLK	2455
Equus_caballus	GLENIQIVASMSVGGRLGRHKLTTRFTSIVRLCAIDYPEREQLQTICGAYLEPVLHKNLK	2455
Canis_lupus_familiaris	GLENIQIVASMSAGGRLGRHKLTTRFTSIVRICAVDYPEREQLQTIYGAYLEPVLHKNLK	2455
Homo_sapiens	GLENIQIVASMSAGGRLGRHKLTTRFTSIVRLCSIDYPEREQLQTIYGAYLEPVLHKNLK	2455
Pan troglodytes	GLENIQIVASMSAGGRLGRHKLTTRFTSIVRLCSIDYPEREQLQTIYGAYLEPVLHKNLK	2455
Macaca mulatta	GLENIQIVASMSAGGRLGRHKLTTRFTSIVRLCSIDYPEREQLQTIYGAYLEPVLHKNLK	2455
Macaca fascicularis	GLENIOIVASMSAGGRLGRHKLTTRFTSIVRLCSIDYPEREOLOTIYGAYLEPVLHKNLK	2455
Callithrix_jacchus	GLENIQIVASMSAGGRLGRHKLTTRFTSIVRLCSIDYPEREOLOTIYGAYLEPVLHKNLK	2455
Xenopus_tropicalis	GLENIQIVASMSAGGSIGRHKLTTRFTSVVRICAVDYPERDQLQTICSSYLEPVIHKNLK	2453
Rhinatrema_bivittatum	GLENIQIVASMSAGGTVGRHKLTSRFTSVVRICAVDYPERDQLQTIYSAYLEPVLHKNLK	2459
	241024202430244024502460	
	** * * *************** ** *** ***** **** **	
Pavo muticus	NHPVWGSLPNIHQLAGSMVQVYEQVRSKFTIDDHGHYLFTPCILTQWVLGLFRYNLSGGP	2512
Pavo cristatus	NHPVWGSLPNIHQLAGSMVQVYEQVRSKFTIDDHGHYLFTPCILTQWVLGLFRYNLSGGP	2512
		_
Gallus_gallus	NHPVWGSSPKIHQLAGSMVQVYEQVRAKFTVDDHGHYLFTPCILTQWVLGLFRYNLSDGP	2512
Chelonia_mydas	NHSVWGSLPKIHQLAGSMVQVYEQVRAKFTVDDHSHYLFTPYILTQWVLGLFRYDLTGGS	2515
Rattus_norvegicus	NHSIWGSSSKIYLLAGSMVQVYEQVRAKFTVDDYSHYFFTPCILTQWVLGLFRYDLEGGS	2515
Mus musculus	NHSIWGSSSKIYLLAGSMVQVYEQVRAKFTVDEYSHYFFTPCILTQWVLGLFRYDLEGGS	2515
Bos taurus	NHSVWGSSSKIYLLAGSMVQVYEQVRAKFTVDDYSHYFFTPCILTQWVLGLFRYDLEGGS	2515
Equus_caballus	NHSIWGSSSKIYLLAGSMVQVYEQVRAKFTVDDYSHYFFTPCILTQWVLGLFRYDLEGGS	2515
Canis lupus familiaris		2515
Homo sapiens	NHSIWGSSSKIYLLAGSMYQVYEQVRAKFTVDDYSHYFFTPCILTQWVLGLFRYDLEGGS	2515
Pan_troglodytes	NHSIWGSSSKIYLLAGSMVQVYEQVRAKFTVDDYSHYFFTPCILTQWVLGLFRYDLEGGS	2515
Macaca_mulatta	NHSIWGSSSKINLLAGSMVQVYEQVRAKFTVDDYSHYFFTPCILTQWVLGLFRYDLEGGS	2515
Macaca_fascicularis	NHSIWGSSSKINLLAGSMVQVYEQVRAKFTVDDYSHYFFTPCILTQWVLGLFRYDLEGGS	2515
Callithrix_jacchus	NHSIWGSSSKIYLLAGSMVQVYEQVRAKFTVDDYSHYFFTPCILTQWVLGLFRYDLEGGS	2515
Xenopus_tropicalis	NHPTWGSLSKIHHLAGSMVQVYEQVRAKFSVDDYSHYLFTPCILTQWIIGLFRYDLTGGS	2513
Rhinatrema bivittatum	NHPIWSPISKIHQLAGSMVQVYEQVRAKFTVDDHSHYLFTPCILTQWVLGLFRYDLTGGS	2519
	24702480249025102520	

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Pavo muticus	STQTADHVMEIVAYEACRLFRDKIVGMKDLHVFDNVLMKVFQSDWGSDVLDNMEDIFYVT	2572
Pavo cristatus	STQTADHVMEIVAYEACRLFRDKIVGMKDLHVFDNVLMKVFQSDWGSDVLDNMEDIFYVT	2572
Gallus gallus	SMQTADHVLEIVAYEACRLFRDKIVGRKDLHVFDNILMKVFQSDWGSDFLDNMEDIFYVT	2572
Chelonia mydas	STHTLDYVLEIVAYEARRLFRDKIVGAKELLIFDNILMKVFQGDWGSDILENMADSFYVT	2575
Rattus norvegicus	SNHPLDYVLEIVAYEARRLFRDKIVGVKELHLFDNILTSVLQGDWGSDILDNMADSFYVT	2575
Mus musculus	SNHPLDYVLEIVAYEARRLFRDKIVGVKELHLFDNILTSVLQGDWGSDILDNMADSFYVT	2575
_		2575
Bos_taurus	SNHPLDYVLEIVAYEARRLFRDKIVGAKELHLFDSILTSVFQGDWGSDVLDNMADNFYVT	
Equus_caballus	SNHPLDYVLEIVAYEARRLFRDKIVGAKELHLFDSILTSVFQGDWGSDVLDNMADSFYVT	2575
Canis_lupus_familiaris	SNHPLDYVLEIVAYEARRLFRDKIVGAKELHLFDNILTSVFQGDWGSDILDNMADSFYVT	2575
Homo_sapiens	SNHPLDYVLEIVAYEARRLFRDKIVGAKELHLFDIILTSVFQGDWGSDILDNMSDSFYVT	2575
Pan_troglodytes	SNHPLDYVLEIVAYEARRLFRDKIVGAKELHLFDIILTSVFQGDWGSDILDNMSDSFYVT	2575
Macaca_mulatta	SNHPLDYVLEIVAYEARRLFRDKIVGAKELHLFDIILTSVFQGDWGSDVLDNMSDSFYVT	2575
Macaca_fascicularis	SNHPLDYVLEIVAYEARRLFRDKIVGAKELHLFDIILTSVFQGDWGSDVLDNMSDSFYVT	2575
Callithrix jacchus	SNHPLDYVLEIVAYEARRLFRDKIVGAKELHLFDIILTSVFQADWGSDILDNMSDSFYVT	2575
Xenopus_tropicalis	SKQSQDCVLEIVAYEARRLFRDRIVTAKELHVFDNILMSVLQGDWGSDVLDNMTDAFYVT	2573
Rhinatrema bivittatum	SQYTQDCVLEIVAYEARRLYRDKLVSTKELSIFDNILMSVFQGDWGSDVLDNMADCFYVT	2579
1112114020114_D2 V 20040411	253025402550256025702580	
	23302340230023702300	
	: .* *.*:*** ** *.*:** ::*.: :::::**:* ***:	
		0600
Pavo_muticus	WGARQEPFTTPGQALPPHGKPLGKLNSTDLIDTIKKGVIHYGRDKKEIEILLFQEVLN	2630
Pavo_cristatus	WGARQEPFTTPGQALPPHGKPLGKLNSTDLIDTIKKGVIHYGRDKKEIEILLFQEVLN	2630
Gallus_gallus	WGAHQEAFTTPGQALPPHGKPLGKLNSTDLIDTIKKGVIHYGRDKKEIEILLFQEVLN	2630
Chelonia_mydas	WGARHEVGAFRAPEQALPPHGKPLGKLTSEDLKDVIKKGIIHYGRDNKEIEILLFQEVLD	2635
Rattus_norvegicus	WGAQHISGAKIAPGQPLPPHGKPLGKLSSADLKDVIKKGLIHYGRDNQNLDILLFQEVLE	2635
Mus musculus	WGAHHVSGGKTAPGOPLPPHGKPLGKLTSADLKDVIKKGLIHYGRDNONLDILLFQEVLE	2635
Bos_taurus	WGAOHTSGTRSVPGOPLPPHGKPLGKLNSSDLKDVIKKGLIHYGRDNONLDILLFOEVLE	2635
Equus_caballus	WGARHNSGTRAAPGQPLPPHGKPLGKLNSADLKDVIKKGLIHYGRDNQNFDILLFQEVLE	2635
Canis_lupus_familiaris	WGARHNSGARAAPGQPLPPHGKPLGKLNSADLKDVIRKGLIHYGRDNQNLDILLFQEVLE	2635
Homo_sapiens	WGARHNSGARAAPGQPLPPHGKPLGKLNSTDLKDVIKKGLIHYGRDNQNLDILLFHEVLE	2635
	WGARHNSGARAAPGOPLPPHGKPLGKLNSTDLKDVIKKGLIHYGRDNONLDILLFHEVLE	2635
Pan_troglodytes		
Macaca_mulatta	WGARHNSGARAAPGQPLPPHGKPLGKLNSTDLKDVIKKGLIHYGRDNQNLDILLFHEVLE	2635
Macaca_fascicularis	WGARHNSGARAAPGQPLPPHGKPLGKLNSTDLKDVIKKGLIHYGRDNQNLDILLFHEVLE	2635
Callithrix_jacchus	WGARHNSGAGAAPGQPLPPHGKPLGKLNSADLKDVIKKGLIHYGRDNQNLDILLFHEVLE	2635
Xenopus_tropicalis	WGALHGAGAVIAPGQPLPPHGRPLGRLNSNDLQDVIKKGAIQYSHMNRELEILFFHEVLD	2633
Rhinatrema_bivittatum	WGALHEVGALIAPGQSLPPHGRPLGKLNSSDLKDVIRKGIMQYSRDNKELDILLFYEVLD	2639
	259026002610262026302640	
	*:**:**** ************ **.***.*:.*::**:**: *:*:.**	
Pavo muticus	YVSRVDRVLSFPGGSLLLAGRSGVGRRTVTSLVSHMHGAFLITPKISRGYEQKQFRNDLK	2690
Pavo_cristatus	YVSRVDRVLSFPGGSLLLAGRSGVGRRTVTSLVSHMHGAFLITPKISRGYEOKOFRNDLK	2690
Gallus gallus	YVSRVDRVLSFPGGSLLLAGRSGVGRRTVTSLVSHMHGAFLITPKISRGYELKQFRNDLK	2690
Chelonia mydas	YVSRIDRVLSFPGGSLLLAGRSGVGRRTVTSLVSHMHGSILITPKISRGYELKQFKNDLK	2695
Rattus_norvegicus	YMSRIDRVLSFPGGSLLLAGRSGVGRRTVTSLVSHMHGAVLFSPKISRGYEPKOFRTDLK	2695
Mus musculus	YMSRIDRVLSFPGGSLLLAGRSGVGRRTVTSLVSHMHGAVLFSPKISRGYEPKQFRNDLK	2695
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Bos_taurus	YMSRIDRVLSFPGGSLLLAGRSGVGRRTITSLVSHMHGAVLFSPKISRGYDLKHFKNDLK	2695
Equus_caballus	YMSRIDRVLSFPGGSLLLAGRSGVGRRTITSLVSHMHGAVLFSPKISRGYELKQFKNDLK	2695
Canis_lupus_familiaris		2695
Homo_sapiens	YMSRIDRVLSFPGGSLLLAGRSGVGRRTITSLVSHMHGAVLFSPKISRGYELKQFKNDLK	2695
Pan_troglodytes	YISRIDRVLSFPGGSLLLAGRSGVGRRTITSLVSHMHGAVLFSPKISRGYELKQFKNDLK	2695
Macaca_mulatta	YMSRIDRVLSFPGGSLLLAGRSGVGRRTITSLVSHMHGAVLFSPKISRGYELKQFKNDLK	2695
Macaca_fascicularis	YMSRIDRVLSFPGGSLLLAGRSGVGRRTITSLVSHMHGAVLFSPKISRGYELKQFKNDLK	2695
Callithrix_jacchus	YMSRIDRVLSFPGGSLLLAGRSGVGRRTITSLVSHMHGALLFSPKISRGYELKQFKNDLK	2695
Xenopus tropicalis	YMSRVDRVLSCPGGSLLLAGRSGVGRRTVTSLVSHMHGAVLFTPKVSRGYELKQFKNDLK	2693
Rhinatrema bivittatum	YMSRIDRVLSFPGGSLLLAGRTGVGRRTLTFLVCHMHGAVLITPKISRGYEIKQFKNDLK	2699
	265026602670268026902700	

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Pavo muticus	HVMELAGIEAQQVVLLLEDYQFVHPTFLEMINSLLSSGEVPGLYKTEELEPLLSPLKDQA	2750
Pavo cristatus	HVMELAGIEAOOVVLLLEDYOFVHPTFLEMINSLLSSGEVPGLYKTEELEPLLSPLKDOA	2750
Gallus_gallus	HVMELAGIEAQQVVLLLEDYQFVHPAFLEMINSLLSSGEVPGLYKSEELEPLLSPLKDQA	2750
Chelonia mydas	QVMQLAGIEAQQVVLLLEDYQFVHSTFLEMVNSLLSSGEVPGLYTIEELEPLLSPLKDQA	2755
Rattus norvegicus	HVLHLAGIEAQQVVLLLEDYQFVHPTFLEMINSLLSSGEVPGLYTLEELEPLLLPLKDQA	2755
Mus musculus	HVLQLAGIEAQQVVLLLEDYQFVHPTFLEMINSLLASGEVPGLYTLEELEPLLLPLKDQA	2755
Bos taurus	YVLHLAGIEAQQVVLLLEDYQFVHPTFLEMINSLLSSGEVPGLYTLEELEPLLLPLKDQA	2755
—	HVLHLAGVEAROVVLLLEDYOFVHPTFLEMINSLLSSGEVPGLYTLEELEPLLLPLKDQA	2755
Equus_caballus		
Canis_lupus_familiaris	HVLHLAGIEAQQVVLLLEDYQFVHPTFLEMINSLLSSGEVPGLYTLEELEPLLLPLKDEA	2755
Homo_sapiens	HVLQLAGIEAQQVVLLLEDYQFVHPTFLEMINSLLSSGEVPGLYTLEELEPLLLPLKDQA	2755
Pan_troglodytes	HVLQLAGIEAQQVVLLLEDYQFVHPTFLEMINSLLSSGEVPGLYTLEELEPLLLPLKDQA	2755
Macaca_mulatta	HVLHLAGIEAQQVVLLLEDYQFVHPTFLEMINSLLSSGEVPGLYTLEELEPLLLPLKDQA	2755
Macaca_fascicularis	HVLHLAGIEAQQVVLLLEDYQFVHPTFLEMINSLLSSGEVPGLYTLEELEPLLLPLKDQA	2755
Callithrix_jacchus	HVLHLAGIEAQQVVLLLEDYQFVYPTFLEMINSLLSSGEVPGLYTLEELEPLLLPLKDQA	2755
Xenopus_tropicalis	QVIQMAGIEGQQVLFLLEDHQFVHPDFLEMINSLLSSGEIPGLYTVEELEPLLSPLKNQA	2753
Rhinatrema_bivittatum	QVMQLAGIEGQQVVLLLEDYQFVHATFLEMINSLLSSGEIPGLYTIEELEPLLSPLKDQA	2759
	271027202730274027502760	
	*:*** **::.*** *: ****:** ** :******: *** * *** * **: *	
Pavo muticus	SQDGFTGPIFNYFTYRIQQNLHVVLIMDSTNINFTINCESNPALYKKCQVLWMETWSENS	2810
Pavo cristatus	SQDGFTGP IFNYFTYR I QONLHVVLIMDSTN INFTINCESNPALYKKCQVLWMETWSENS	2810
Gallus_gallus	SODGFTGP I FNYFTYR I OONLHVVLIMDSTN I NFT I NCESN PALYKK COVLWMETWSENS	2810
Chelonia_mydas	SODGFTGPVFNYFTYRIOONLHIVLIMDSTNLNFTINCESNPALHKKCOVLWMESWSESS	2815
Rattus norvegicus	SQDGFFGPVFNYFTYRIQQNLHIVLIMDSANLNFIINCESNPALHKKCQVLWMEGWSDSS	2815
Mus musculus	SQDGFFGPVFNYFTYRIQQNLHIVLIMDSANLNFIVNCESNPALHKKCQVLWMEGWSDSS	2815
Bos taurus	SODGFFGPVFNYFTYRVOONLHIVLIMDSANLNFIINCESNPALHKKCOVLWMEAWSDSS	2815
Equus_caballus	SQDGFFGPVFNYFTYRIQQNLHIVLIMDSANLNFIINCESNPALHKKCQVLWMEGWSDSS	2815
Canis_lupus_familiaris	SODGFFGPVFNYFTYRIOONLHIVLIMDSANLNFIINCESNPALHKKCOVLWMEGWSDSS	2815
	SQDGFFGPVFNYFTYRIQQNLHIVLIMDSANSNFMINCESNPALHKKCQVLWMEGWSDSS	2815
Homo_sapiens		
Pan_troglodytes	SQDGFFGPVFNYFTYRIQQNLHIVLIMDSANSNFMINCESNPALHKKCQVLWMEGWSNSS	2815
Macaca_mulatta	SQDGFFGPVFNYFTYRIQQNLHIVLIMDSANSNFMINCESNPALHKKCQVLWMEGWSDSS	2815
Macaca_fascicularis	SQDGFFGPVFNYFTYRIQQNLHIVLIMDSANSNFMINCESNPALHKKCQVLWMEGWSDSS	2815
Callithrix_jacchus	SQDGFFGPVFnYFTYRIQQNLHVVLIMDSANLNFMINCESNPALPKKCQVLWMEGWSDSS	2815
Xenopus_tropicalis	SEDGFTGPVLGYFTNRVLQNLHVVLIMDCTNTNFTINCESNPAFYKKCSVQWMEGWSDKS	2813
Rhinatrema_bivittatum	SEDGFMGPIFNYFTYRIQQNLHVVLIMDCTNSNFTINCESNPALYKKCLVQWMEGWSDMS	2819
	277027802790280028102820	
	* :** *:: : . *:	
Pavo_muticus	MTKIPEMLLYD-DEEEKTE-KTHKEFKKKHSGDSDFWKSFLVIHESCKMYGATPSRYMTF	2868
Pavo_cristatus	MTKIPEMLLYD-DEEEKTE-KTHKEFKKKHSGDSDFWKSFLVIHESCKMYGATPSRYMTF	2868
Gallus_gallus	MKKIPEMLLYD-DEQEKME-KTHKEFKKKHSGDSDFWKSFLVIHESCKMYGATPSRYMTF	2868
Chelonia mydas	MKKIPEMLFADLDEQEKTG-RAHKEPKKKYSGDSDFLKSFLVIHESCKAYGATPSRYMTF	2874
Rattus_norvegicus	MKKIPEMLFSEADIEEKYE-KKRKDEKKKSSVDPDFIKSFLLIHESCKAYGATPSRYMTF	2874
Mus musculus	MKKIPEMLFSETDGEEKYE-KKRKDEKKRNSVDPDFIKSFLLIHESCKAYGATPSRYMTF	2874
Bos taurus	MKKIPEMLLSEMGGDERYSDKKRKEEKKKKSVDPEFLKSFLLIHESCKAYGATPSRYMTF	2875
Equus caballus	MKKIPEMLFSETGGEEKYSDKKRKEEKKKNSVDPDFLKSFLLIHESCKAYGATPSRYMTF	2875
	MRKIPEMLFSETDGEEKYSDKKRKEEKKKSSVDLDFLKSFLLIHESCKAYGATPSRYMTF	2875
Homo sapiens	MKKIPEMLFSETGGGEKYNDKKRKEEKKKNSVDPDFLKSFLLIHESCKAYGATPSRYMTF	2875
Pan troglodytes	MKKIPEMLFSETGGGEKYNDKKRKEEKKKNSVDPDFLKSFLLIHESCKAYGATPSRYMTF	2875
Macaca mulatta	MKKIPEMLLSETGGEEKYNDKKRKEEKKKNSVDPDFLKSFLLIHESCKAYGATPSRYMTF	2875
Macaca_mulatta Macaca fascicularis	MKKIPEMLLSETGGEEKYNDKKRKEEKKKNSVDPDFLKSFLLIHESCKAYGATPSRYMTF	2875
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Callithrix_jacchus	MKKIPEMLFSETG-EEKHNHKKRKEEKK-NSVDPDFLKSFLLIHESCKAYGATPSRYMTF	2873
Xenopus_tropicalis	MKKIPEMVILDPNSKEKMQMDPGYKKVSSGDSEFFNSFLMIHESCKSYGATPSRYMTF	2871
Rhinatrema_bivittatum	MKQIPTMLFTNENGQEKTGTDKDYKKNISGNIDFLKSFLVIHESCKPYGATPSRYMTF	2877
	283028402850286028702880	

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Pavo_muticus Pavo_cristatus Gallus_gallus Chelonia_mydas Rattus_norvegicus Mus_musculus Bos_taurus Equus_caballus Canis_lupus_familiaris Homo_sapiens Pan_troglodytes	*.**.::.** ** ** *** ************ ** :*:* ***:**: ** ***:* LNVYSSINNSKRAELVKRONHLQAGVSKLNEAKALVDELNKKAGEQSILLKTKQDEADAA LNVYSSINNSKRAELVKRONHLQAGVSKLNEAKALVDELNKKAGEQSILLKTKQDEADAA LNVYSSINNSKRTELIKRONHLQAGVSKLNEAKALVDELNKKAGEQSILLKTKQDEADAA LRVYSAINSSKRAELLKRQSHLQAGVSKLNEAKALVDELNRKAGEQSILLKIKQDEADAA LRVYSAISSSKRKELLKRQSHLQAGVSKLNEAKALVDELNRKAGEQSILLRIKQDEADSA LHVYSAISSSKKKELLKRQSHLQAGVSKLNEAKALVDELNRKAGEQSILLRIKQDEADSA LRVYSAISSSKKEELLKRQSHLQAGVSKLNEAKALVDELNRTAGEQSVLLKTKQDEADAA LHVYSAISSSKKKELLKRQSHLQAGVSKLNEAKALVDELNRKAGEQSILLKTKQDEADAA LRVYSAISSSKKKELLKRQSHLQAGVSKLNEAKALVDELNRKAGEQSVLLKTKQDEADAA LRVYSAISSSKKKELLKRQSHLQAGVSKLNEAKALVDELNRKAGEQSVLLKTKQDEADAA LHVYSAISSSKKKELLKRQSHLQAGVSKLNEAKALVDELNRKAGEQSVLLKTKQDEADAA LHVYSAISSSKKKELLKRQSHLQAGVSKLNEAKALVDELNRKAGEQSVLLKTKQDEADAA	2928 2928 2928 2934 2934 2935 2935 2935 2935
Macaca_mulatta	LHVYSAISSSKKKELLKRQSHLQAGVSKLNEAKALVDELNRKAGEQSVLLKTKQDEADAA	2935
Macaca_fascicularis	LHVYSAISSSKKKELLKRQSHLQAGVSKLNEAKALVDELNRKAGEQSVLLKTKQDEADAA	2935
Callithrix_jacchus Xenopus_tropicalis	LHVYSAISSS <mark>KK</mark> KELL <mark>KR</mark> QSHLQA <mark>G</mark> VS <mark>K</mark> LNEA <mark>K</mark> ALVDEL <mark>NRK</mark> AGEQSVLL <mark>KTKQ</mark> DEADAA LRVYGSLYSSKIAELTKRQRHLQAGVSKLNEAKALVDELKGKAGEQSLLLKTKQAEADSA	2933 2931
Rhinatrema_bivittatum	LHVYSSMYSSKKTELTKRQSHLQAGVSKLNEAKDLVDKLKRKAREQSILLKTKQTEADAA	2937
	289029002910292029302940	
	** ** ***.**:*::::::****. :* *** **:****:***.***	
Pavo_muticus	LQEITISMQSASEQKTEMEKIKQRIAEEAAEIEERKRKIEDELKEVQPLVNEAKLAVGNI	2988
Pavo_cristatus Gallus_gallus	LQEITISMQSA <mark>SEQKTEMEK</mark> IKQRIAEEAAEIEERKRKIEDELKEVQPLVNEAKLAVGNI LQEITISMQNASEQKAEMEKIKQRIAEEAAEIEERKRKIEDELKEVQPLVNEAKLAVGNI	2988 2988
Chelonia_mydas	LOEITVSMODASEOKTEMEKIKHKIAEEVVKIEERKRKIEDELKEVOPLVNEAKLAVGNI	2994
Rattus_norvegicus	LQEITVSMQDASEQKTELERLKHRIAEEVVKIEERKSKIDDELKEVQPLVNEAKLAVGNI	2994
Mus_musculus	LQEITVSMQDASEQKTELERLKQRIAEEVVKIEERKSKIDDELKEVQPLVNEAKLAVGNI LOEITVSMODASEOKTELERLKHRIAEEVIKIEERKNKIDDELKEVOPLVNEAKLAVGNI	2994
Bos_taurus Equus_caballus	LQEITVSMQDASEQKTELERLKHKIAEEVVKIEERKNKIDDELKEVQPLVNEAKLAVGNI LQEITVSMQDASEQKTELERLKHKIAEEVVKIEERKNKIEDELKEVHPLVSEAKLAVGNI	2995 2995
Canis_lupus_familiaris	LQEITVSMQDA <mark>SEQKTELERLKHKIAEEVVKIEERKNKIDDELKEVQP</mark> LV <mark>NEAK</mark> LAV <mark>GN</mark> I	2995
Homo_sapiens	LQMITVSMQDASEQKTELERLKHRIAEEVVKIEERKNKIDDELKEVQPLVNEAKLAVGNI	2995
Pan_troglodytes Macaca mulatta	LQMITVSMQDASEQKTELERLKHRIAEEVVKIEERKNKIDDELKEVQPLVNEAKLAVGNI LQMITVSMQDASEQKTELERLKHRIAEEVVKIEERKNKIDDELKEVQPLVNEAKLAVGNI	2995 2995
Macaca_fascicularis	LQMITVSMQDA <mark>SEQKTELERLKHRIAEEVVKIEERKNKIDDELKEVQPLVNEAK</mark> LAV <mark>GN</mark> I	2995
Callithrix_jacchus	LQMITVSMQDASEQKTELERLKHKIAEEVVKIEERKNKIDDELKEVQPLVNEAKLAVGNI	2993
Xenopus_tropicalis Rhinatrema_bivittatum	LQEITTSMQNASDQKAEMEKIQQKIAEEAVKIAERKGKIEDELKEVQPLVNEAKEAVGNI LQEITVSMQNASDQKTEMEKIKQKIAEEAVKIEERKRKIEDELKEVQPLVDEAKLAVGNI	2991 2997
MIIIIati ema_bivittatum	295029602970298029903000	2001
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Pavo muticus	KPESLSEIRSLRMPPDIIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVKEDIATFDARNI	3048
Pavo_cristatus	KPESLSEIRSLRMPPDIIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVKEDIATFDARNI	3048
Gallus_gallus Chelonia mydas	KPESLSEIRSLRMPPDIIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVKEDIATFDARNI KPESLSEIRSLRMPPDIIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVREDIATFDARNI	3048 3054
Rattus_norvegicus	RPESLSEIRSLRMPPDVIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVREDIATFDARNI	3054
Mus_musculus	RPESLSEIRSLRMPPDVIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVREDIATFDARNI	3054
Bos_taurus Eguus caballus	KPESLSEIRSLRMPPDVIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVREDIATFDARNI RPESLSEIRSLRMPPDVIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVREDIATFDARNI	3055 3055
	KPESLSEIRSLRMPPDVIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVREDIATFDARNI	3055
Homo_sapiens	KPESLSEIRSLRMPPDVIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVREDIATFDARNI	3055
Pan_troglodytes Macaca mulatta	KPESLSEIRSLRMPPDVIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVREDIATFDARNI	3055
Macaca_mulatta Macaca fascicularis	KPESLSEIRSLRMPPDVIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVREDIATFDARNI KPESLSEIRSLRMPPDVIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVREDIATFDARNI	3055 3055
Callithrix_jacchus	KPESLSEIRSLRMPPDIIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVREDIATFDARSI	3053
Xenopus_tropicalis	KPESLSEIRSLRAPPDIIRDILEGVLRMMGIFDTSWVSMKSFLAKRGVREDIVTFDVRNI	3051
Rhinatrema_bivittatum	KPESLSEIRSLRMPPDVIRDILEGVLRLMGIFDTSWVSMKSFLAKRGVREDIATFDVRNI301030203030304030503060	3057

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	. *** ***** :: **: *.*:******* **:***:**	
Pavo_muticus	PKEIRESVEELLSKNRTSFDPKNAKRASAAAAPLAAWVNANVQYSHVLERIQPLEKEKAV	3108
Pavo_cristatus	PKEIRESVEELLSKNRTSFDPKNAKRASAAAAPLAAWVNANVQYSHVLERIQPLEKEKAV	3108
Gallus_gallus	PKEIRESVEELLSKNRTSFDPKNAKRASAAAAPLAAWVNANVQYSHVLERIQPLEKEKAV	3108
Chelonia_mydas	PKEIRESVEELLSKNKASFDPKNAKRASTAAAPLAAWVKANVQYSYVLERIQPLEKEQSG	3114
Rattus_norvegicus	PKEIRESVEELLFKNKASFDPKNAKRASTAAAPLAAWVKANVQYSHVLERIQPLETEQSG	3114
Mus_musculus	PKEIRESVEELLFKNKASFDPKNAKRASTAAAPLAAWVKANVQYSHVLERIQPLETEQSG	3114
Bos taurus	PKEIRESVEELLFKNKGSFDPKNAKRASTAAAPLAAWVKANVQYSHVLERIQPLETEQAG	3115
Equus caballus	PREIRESVEELLFKNKGSFDPKNAKRASTAAAPLAAWVKANVQYSHVLERIQPLETEQAG	3115
Canis_lupus_familiaris		3115
		3115
Homo_sapiens	SKEIRESVEELLFKNKGSFDPKNAKRASTAAAPLAAWVKANIQYSHVLERIHPLETEQAG	3115
Pan_troglodytes	SKEIRESVEELLFKNKGSFDPKNAKRASTAAAPLAAWVKANIQYSHVLERIH <mark>P</mark> LETEQAG	
Macaca_mulatta	SKEIRESVEELLYKNKGSFDPKNAKRASTAAAPLAAWVKANIQYSHVLERIQPLETEQAG	3115
Macaca_fascicularis	SKEIRESVEELLYKNKGSFDPKNAKRASTAAAPLAAWVKANIQYSHVLERIQPLETEQAG	3115
Callithrix_jacchus	SKEIRESVEELLFRNKGSFDPKNAKRASTAAAPLAAWVKANVQYSHVLERIQPLETEQAG	3113
Xenopus_tropicalis	TSEIRTSVEELLKMKRTSFEEKNARRASAAAAPLAAWVIANVQYSHVLEKIQPLEKEQSV	3111
Rhinatrema_bivittatum	TKEIRASVEELLEKNRTSFEAKTAKRASAAAAPLAAWVKANVQYSHVLEKIQPLENEQAV	3117
	307030803090310031103120	
	* **:** :*: : : : : : : : : : : : : : :	
Pavo muticus	LEANLKKTEGRKRKLEDLVNSVGQKVSELKDKFQSRTTEAAKLEAELSKAQKTLKAAEIL	3168
Pavo cristatus	LEANLKKTEGRKRKLEDLVNSVGOKVSELKDKFOSRTTEAAKLEAELSKAOKTLKAAEIL	3168
Gallus_gallus	LEANLKKTEGRKHKLEDLVNSVGQKVSELKDKFQSRTTEAAKLEAELSKAQKTLKAAEIL	3168
Chelonia mydas	LEANLKKTEDRKQKLEDLLNSVGQKVSELKDKFQSRTAEAAKLEAEVVKAQETLKAAEIL	3174
Rattus_norvegicus	LELNLKKTEDRKRKLEDLLNSVGQKVSELKEKFQSRTSEAAKLEAEVSKAQETIKAAEVL	3174
Mus musculus	LELNLKKTEDRKRKLEDILINSVGQKVSELKEKFQSRTSEAAKLEAEVSKAQETIKAAEVL	3174
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Bos_taurus	LESNLRKTEDRKRKLEELLNSVGQKVSELKEKFQSRTSEAAKLEAEVSKAQETIKAAEVL	3175
Equus_caballus	LELNLKKTEDRKRKLEELLDSVGQKVSELKEKFQSRTSEAAKLEAEVSKAQETIKAAEVL	3175
Canis_lupus_familiaris		3175
Homo_sapiens	LESNLKKTEDRKRKLEELLNSVGQKVSELKEKFQSRTSEAAKLEAEVSKAQETIKAAEVL	3175
Pan_troglodytes	LESNLKKTEDRKRKLEELLSSVGQKVSELKEKFQSRTSEAAKLEAEVSKAQETIKAAEVL	3175
Macaca_mulatta	L <mark>ESNLKKTEDRKRK</mark> LEDLLNSV <mark>GQKVSELKEKFQSRTSEAAK</mark> LEAEV <mark>SK</mark> AQETIKAAEVL	3175
Macaca_fascicularis	L <mark>ESNLKKTEDRKRK</mark> LEDLLNSV <mark>GQKVSELKEKFQSRTSEAAK</mark> LEAEV <mark>SK</mark> AQETIKAAEVL	3175
Callithrix_jacchus	LELNL <mark>KKTEDRKRK</mark> LEELLNSV <mark>GQK</mark> VSELKEKFQSRTSEAAKLEAEVSKAQETIKAAEVL	3173
Xenopus_tropicalis	LES <mark>NLRRTEEKKHK</mark> LERQLNSV <mark>GQR</mark> VSELKEKFQTRTAEAAKLEAEL <mark>SK</mark> AQEVIQAAELL	3171
Rhinatrema_bivittatum	LVS <mark>NLRKTEDKKÖRLEDQLNSVG</mark> QKVSELKEKFQTRTTEAAKLEAELTKAQEIIKAAEVL	3177
	313031403150316031703180	
	* *** *::**::* ** :: * :**:******* *: ** :: * * : *	
Pavo muticus	ISQLDREHKRWSTQVSEIRDELATLPKRAQLAAAFVTYLSAAPEDQRKTRLDEWTKSAGL	3228
Pavo_cristatus	ISOLDREHKRWSTOVSEIRDELATLPKRAOLAAAFVTYLSAAPEDORKTRLDEWTKSAGL	3228
Gallus_gallus	ISQLDREHKRWSTQVSEIRDELVTLPKRAQLAAAFITYLSAAPEDQRKTRLDEWTKSAGL	3228
Chelonia_mydas	INOLDREHKRWNTOVSEITDELTTLPKRAOLAAAFITYLSAAOEDORKISLDEWTKSAGL	3234
Rattus_norvegicus	ISQLDREHRRWNAQVAEIAEELATLPKRAQLAAAFITYLSAAPEGLRKNCLEEWTKAAGL	3234
Mus musculus	ISQLDREHRRWNAQVAEIAEELATLPKRAQLAAAFITYLSAAPEGLRKNCLEEWTKAAGL	3234
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Bos_taurus	INQLDREHRRWNAQVAEITEELATLPKRAQLAAAFITYLSAA <mark>PEG</mark> LRKTCLEAWTKFT <mark>G</mark> L	3235
Equus_caballus	INQLDREHKRWNAQVAEITEELTTLPKRAQLAAAFITYLSAAPEDLRKTCLEEWIKSACL	3235
	ISQLDREHKRWNAQVAEITEELATLPKRAQLAAAFITYLSAA <mark>PEG</mark> LRKTCLEEWTKSACL	3235
Homo_sapiens	INQLDREHKRWNAQVVEITEELATLPKRAQLAAAFITYLSAA <mark>PE</mark> SLRKTCLEEWTKSA <mark>G</mark> L	3235
Pan_troglodytes	INQLDREHKRWNAQVVEITEELATLPKRAQLAAAFITYLSAAPESLRKTCLEEWTKSAGL	3235
Macaca_mulatta	INQLDREHKRWNAQVVEITEELATLPKRAQLAAAFITYLSAAPESLRKTCLEEWTKSAGL	3235
Macaca_fascicularis	I <mark>NQLDREHKR</mark> WNAQVVEITEELATL <mark>PKR</mark> AQLAAAFITYLSAA <mark>P</mark> ESLRKTCLEEWTKSAGL	3235
Callithrix_jacchus	I <mark>NQLDREHKR</mark> WNAQVVEI <mark>TEE</mark> LA <mark>TLPKR</mark> AQLAAAFI <mark>SYLS</mark> AA <mark>PEGLRKT</mark> CLEEW <mark>TKS</mark> AGL	3233
Xenopus_tropicalis	INQLDGENKRWNSQVVEITEQLSALPKRAQLAAAFITYISAAPEDQRKGSIEQWMKCVGL	3231
Rhinatrema bivittatum	IHQLDGEHKRWNAQVAEITEELDTLPRRAQLAAAFITYLSAAPEDQRKASLDEWTKSAGL	3237
	319032003210322032303240	

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Pavo muticus	EKFDLRRFLCTESEELVWKSEGLPSDDLSIENALVILQSKVCPFLIDPSFRAT	3281
Pavo cristatus	EKFDLRRFLCTESEELVWKSEGLPSDDLSIENALVILOSKVCPFLIDPSFRAT	3281
Gallus_gallus	EKFDLRRFLCTESEELVWKSEGLPSDDLSIENALVILQSKVCPFLIDPSFRAT	3281
Chelonia_mydas	EKFDMRRFLCTESEQLIWKSEGLPSDDLSIENALVILQSRICPFLIDPSSRAT	3287
Rattus_norvegicus	EKFDLRRFLCTESEQLIWKSEGLPSDDLSIENALVILQSRVCPFLIDPSSQAT	3287
Mus_musculus	EKFDLRRFLCTESEQLIWKSEGLPSDDLSIENALVILQSRVCPFLIDPSSQAT	3287
	EKFDLRRFLCTESEQLIWKSEGLPSDDLSIENALVILQIIGLKSWSRVCPFLIDPSSQAT	3295
Bos_taurus		
Equus_caballus	EKFDLRRFLCTESEQLIWKSEGLPSDDLSIENAIVILQIIGLKSWSRVCPFLIDPSSQAT	3295
Canis_lupus_familiaris	EKFDLRRFLCTESEQLIWKSEGLPSDDLSIENALVILQIIGLKSWSQVCPFLIDPSSQAT	3295
Homo_sapiens	EKFDLRRFLCTESEQLIWKSEGLPSDDLSIENALVILQSRVCPFLIDPSSQAT	3288
Pan_troglodytes	EKFDLRRFLCTESEQLIWKSEGLPSDDLSIENALVILQIIGLKSWSRVCPFLIDPSSQAT	3295
Macaca_mulatta	EKFDLRRFLCTESEQLIWKSEGLPSDDLSIENALVILQIIGLKSWSRVCPFLIDPSSQAT	3295
Macaca_fascicularis	EKFDLRRFLCTESEQLIWKSEGLPSDDLSIENALVILQIIGLKSWSRVCPFLIDPSSQAT	3295
Callithrix_jacchus	EKFDLRRFLCTESEQLIWKSEGLPSDDLSIENALVILQIIGLKSRSRVCPFLIDPSSQAT	3293
Xenopus_tropicalis	ETFDLRRFLSTESEQLIWKSEGLPSDELSIENALVILQSKICPFLIDPSSQAT	3284
Rhinatrema_bivittatum	DAFDLRRFLSTESEQLIWKSEGLPSDDLSIENALVILQSHVCPFLIDPSSQAT	3290
	325032603270328032903300	
	*******: :**:**::******************	
Pavo muticus	EWLKTHLKESHLEVVNQQDTNFLTTLELAVRFGKTLIIQEMDGMEPVLYPLLRKDLVVQG	3341
Pavo_muticus Pavo cristatus	EWLKTHLKESHLEVVNQQDTNFLTTLELAVRFGKTLIIQEMDGMEPVLYPLLRKDLVVQG	3341
_		
Gallus_gallus	EWLKTHLKESRLEVVNQQDANFLTTLELAVRFGKTLIIQEMDGMEPVLYPLLRKDLVVQG	3341
Chelonia_mydas	EWLKTHLKESRLEVINQQDASFITALELAVRFGKTLILQEMDGVEPVLYPLLRKDLVAQG	3347
Rattus_norvegicus	EWLKTHLKDSHLEVINQQDSNFITALELAVRFGKTLIIQEMDGVEPVLYPLLRRDLVAQG	3347
Mus_musculus	EWLKTHLKDSHLEVINQQDSNFITALELAVRFGKTLIIQEMDGVEPVLYPLLRRDLVAQG	3347
Bos_taurus	EWLKTHLKDSRLEVINQQDSNFITALELAVRFGKTLIIQEMDGVEPVLYPLLRRDLVAQG	3355
Equus_caballus	EWLKTHLKDSRLEVVNQQDSNFITALELAVRFGKTLIIQEMDGVEPVLYPILRRDLVAQG	3355
Canis_lupus_familiaris	EWLKTHLKDSRLEVINQQDSNFITALELAVRFGKTLIIQEVDGVEPVLYPLLRRDLVAQG	3355
Homo sapiens	EWLKTHLKDSRLEVINOODSNFITALELAVRFGKTLIIOEMDGVEPVLYPLLRRDLVAOG	3348
Pan troglodytes	EWLKTHLKDSCLEVINQQDSNFITALELAVRFGKTLIIQEMDGVEPVLYPLLRRDLVAQG	3355
Macaca mulatta	EWLKTHLKDSRLEVINQQDSNFITALELAVRFGKTLIIQEMDGVEPVLYPLLRRDLVAQG	3355
Macaca fascicularis	EWLKTHLKDSRLEVINQQDSNFITALELAVRFGKTLIIQEMDGVEPVLYPLLRRDLVAQG	3355
Callithrix_jacchus	EWLKTHLKDSRLEVINQQDSNFITALELAVRFGKTLIIQEMDGVEPVLYPLLRRDLVAQG	3353
	EWLKTHLKESRMEVINQQDANFMTALELAVRFGKTLIIQEMDGVEPVLYPLLRKDLIAQG	3344
Xenopus_tropicalis		3350
Rhinatrema_bivittatum	EWLKTHLKELRLEVINQQDANFITAVELAVRFGKTLIIQEMDGVEPVLYPLLRKDLIAQG	3350
	331033203330334033503360	
	.:: *****.**:**.**.**.** : ****** : ******	
Pavo_muticus	PRYAIQIGEKMIDYNEEFRLFLSTRNPNPFIPPDASSVVMEVNFTTTGSGLRGQLLALTI	3401
Pavo cristatus	PRYAIQIGEKMIDYNEEFRLFLSTRNPNPFIPPDASSVVMEVNFTTTGSGLRGQLLALTI	3401
Gallus_gallus	PRYAIQIGEKMIDYNEEFRIFLSTRNPNPLIPPDASSIVMEVNFTTTGSGLRGQLLALTI	3401
Chelonia mydas	PRYAVQIGDKIIDYNEEFRLFLSTRNPNPFIPPDAASIITEVNFTTTRSGLRGQLLALTI	3407
Rattus_norvegicus	PRYVVQIGDKIIDYNEDFRLFLSTRNPNPFIPPDAASIVTEVNFTTTRSGLRGQLLALTI	3407
Mus musculus	PRYVVQIGDKIIDYNEDFRLFLSTRNPNPFIPPDAASIVTEVNFTTTRSGLRGQLLALTI	3407
Bos_taurus	PRYVVQIGDKIIDYNEEFRLFLSTRSPNPFIPPDAASIVTEVNFTTTRSGLRGQLLALTI	3415
	PRYVVOIGDKIIDYNEEFRLFLSTRNPNPFIPPDAASIVTEVNFTTTRSGLRGQLLALTI	3415
Equus_caballus		
Canis_lupus_familiaris	PRYVVQIGDKIIDYNEEFRLFLSTRNPNPFIPPDAASIITEVNFTTTRSGLRGQLLALTI	3415
Homo_sapiens	PRYVVQIGDKIIDYNEEFRLFLSTRNPNPFIPPDAASIVTEVNFTTTRSGLRGQLLALTI	3408
Pan_troglodytes	PRYVVQIGDKIIDYNEEFRLFLSTRNPNPFIPPDAASIVTEVNFTTTRSGLRGQLLALTI	3415
Macaca_mulatta	PRYVVQIGDKIIDYNEEFRLFLSTRNPNPFIPPDAASIVTEVNFTTTRSGLRGQLLALTI	3415
Macaca_fascicularis	PRYVVQIGDKIIDYNEEFRLFLSTRNPNPFIPPDAASIVTEVNFTTTRSGLRGQLLALTI	3415
Callithrix_jacchus	PRYVVQIGDKIIDYNEEFRLFLSTRNPNPFIPPDAASIVTEVNFTTTRSGLRGQLLALTI	3413
Xenopus_tropicalis	PRYVVQIGDKTIDYNEDFRLFLATRNPNPFIPPDAASCVTEVNFTTTRAGLRGQLLALTI	3404
Rhinatrema bivittatum	PRYVVQIGDKIIDYNEHFRLFLATRNPNPVIPPDAASIVTEVNFTTTRAGLRGQLLALTI	3410
	337033803390340034103420	-

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Pavo muticus	QHEKPDLEEQKTKLLQQEEDKKIQLAKLEESLLETLATSQGNILENKDLIESLNQTKASS	3461
Pavo cristatus	OHEKPDLEEOKTKLLOOEEDKKI OLAKLEESLLETLATSOGNILENKULIESLNOTKASS	3461
Gallus_gallus	QHEKPDLEEQKTKLLQQEEEKKIQLAKLEESLLETLATSQGNILENKDLIESLNQTKASS	3461
Chelonia_mydas	QHEKPDLEDQKTKLLQQEEEKKIQLAKLEESLLETLATSQGNLLENKDLIESLNQTKASS	3467
Rattus_norvegicus	QHEKPOLEEQKTKLLQQEEDKKIQLARLEESLLETLATSQGNILENKOLIESLNQTKASS	3467
Mus_musculus	QHEKPDLEEQKTKLLQQEEDKKIQLARLEESLLETLATSQGNILENKDLIESLNQTKASS	3467
Bos_taurus	QHEKPDLEEQKTKLLQQEEDKKIQLAKLEESLLETLATSQGNILENKDLIESLNQTKASS	3475
Equus_caballus	QHEKPDLEEQKTKLLQQEEDKKIQLAKLEESLLETLATSQGNILENKDLIESLNQTKASS	3475
Canis_lupus_familiaris	QHEKPDLEEQKTKLLQQEEDKKIQLAKLEESLLETLATSQGNILENKDLIESLNQTKASS	3475
Homo_sapiens	QHEKPDLEEQKTKLLQQEEDKKIQLAKLEESLLETLATSQGNILENKDLIESLNQTKASS	3468
Pan_troglodytes	QHEKPDLEEQKTKLLQQEEDKKIQLAKLEESLLETLATSQGNILENKDLIESLNQTKASS	3475
Macaca_mulatta	QHEKPDLEEQKTKLLQQEEDKKIQLAKLEESLLETLATSQGNILENKDLIESLNQTKASS	3475
Macaca_fascicularis	QHEKPDLEEQKTKLLQQEEDKKIQLAKLEESLLETLATSQGNILENKDLIESLNQTKASS	3475
Callithrix_jacchus	QHEKPDLEEQKTKLLQQEEDKKIQLAKLEESLLETLATSQGNILENKDLIESLNQTKASS	3473
Xenopus_tropicalis	QHEKPDLEEQKTKLLQQEEDKKIQLAKLEESLLETLATSQGNILDNKYLIESLNQTKASS	3464
Rhinatrema_bivittatum	QHEKPDLEEQKTKLLQQEEDKKIQLAKLEESLLETLATSQGNILDNKDLIESLNQTKASS	3470
	343034403450346034703480	
	****:** **::** *********:**************	
Pavo muticus	ALIQESLAESHRLQSSLDQERNAYLPLAESASKMYFIISDLSKTNNMYRFSLAAFLRLFQ	3521
Pavo_cristatus	ALIQESLAESHRLQSSLDQERNAYLPLAESASKMYFIISDLSKINNMYRFSLAAFLRLFQ	3521
Gallus gallus	ALIQESLAESHRLQSSLDQERNAYLPLAESASKMYFIISDLSKINNMYRFSLAAFLRLFQ	3521
Chelonia mydas	ALIQESLAESHKLQISLDQERDAYLPLAESASKMYFIISDLSKINNMYRFSLAAFLRLFQ	3527
Rattus_norvegicus	ALIQDSLKESYKLQISLDQERDAYLPLAESASKMYFIISDLSKINNMYRFSLASFLRLFQ	3527
Mus musculus	ALIQDSLKESYKLQISLDQERDAYLPLAESASKMYFIISDLSKINNMYRFSLASFLRLFQ	3527
Bos_taurus	ALIQESLKESYKLQISLDQERDAYLPLAESASKMYFIISDLSKINNMYRFSLASFLRLFQ	3535
Equus_caballus	ALIQESLKESYKLQISLDQERDAYLPLAESASKMYFIISDLSKINNMYRFSLAAFLRLFQ	3535
Canis_lupus_familiaris	ALIQESLKESYKLQISLDQERDAYLPLAESASKMYFIISDLSKINNMYRFSLAAFLRLFQ	3535
Homo_sapiens	ALIQESLKESYKLQISLDQERDAYLPLAESASKMYFIISDLSKINNMYRFSLAAFLRLFQ	3528
Pan_troglodytes	ALIQESLKESYKLQISLDQERDAYLPLAESASKMYFIISDLSKINNMYRFSLAAFLRLFQ	3535
Macaca_mulatta	ALIQESLKESYKLQISLDQERDAYLPLAESASKMYFIISDLSKINNMYRFSLAAFLRLFQ	3535
Macaca_fascicularis	ALIQESLKESYKLQISLDQERDAYLPLAESASKMYFIISDLSKINNMYRFSLAAFLRLFQ	3535
Callithrix_jacchus	ALIQESLKESYKLQISLDQERDAYLPLAESTSKMYFIISDLSKINNMYRFSLAAFLRLFQ	3533
Xenopus_tropicalis	ALIQESLSESHKLQLSLDQERNAYLPLAESASKMYFIICDLSKINNMYRFSLAAFLRLFQ	3524
Rhinatrema_bivittatum	ALIQESLTESHRLQIFLDQERDAYLPLAECASKMFFIISDLSKINNMYRFSLTAFLRLFQ	3530
	$\dots 3490 \dots 3500 \dots 3510 \dots 3520 \dots 3530 \dots 3540$	
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Pavo muticus	RALQSEQDSSNTDERIESLIYTLKHTVYEYVCRCLFKYCTLIFILKDVR-TNEVFIYSLE	3580
Pavo cristatus	RALOSEODSSNTDERIESLIYTLKHTVYEYVCRCLFKYCTLIFILKDVR-TNEVFIYSLE	3580
Gallus gallus	RALQSEQDSTNTDERIESLIYTLKHTVYEYVCRCLLKADQLMFALHFVRGMHPELFQETE	3581
Chelonia_mydas	RALQSKQDSENTEERIMSLISSLKHMVYEYVCRCLFKADQLMFALHFVRGMHPELFQDNE	3587
Rattus_norvegicus	RALONKODSESTEORIOCLVNSLKHMVYEYICRCLFKADOLMFALHFVRGMHPEFFQENE	3587
Mus musculus	RALONKODSENTEERIOCLVNSLKHMVYEYICRCLFKADOLMFALHFVRGMHPELFQENE	3587
Bos_taurus	RALQNKQDSENTEQRIKSLINSLKHMVYEYICRCLFKADQLMFALHFIRGMHPELFQENE	3595
Equus_caballus	RALQNKQDSENTEQRIQSLISSLKHMVYKYICRCLFKADQLMFAFHFVRGMHPELFQENE	3595
	RALQNKQDSENTEQRIQSLISSLKHMVYEYICRCLFKADQLMFALHFVRGMHPELFQENE	3595
Homo_sapiens	RALQNKQDSENTEQRIQSLISSLQHMVYEYICRCLFKADQLMFALHFVRGMHPELFQENE	3588
Pan_troglodytes	RALQNKQDSENTEQRIQSLISSLQHMVYEYICRCLFKADQLMFALHFVRGMHPELFQENE	3595
Macaca_mulatta	RALQNKQDSENTEQRIQSLISSLKHMVYEYICRCLFKADQLMFALHFVRGMHPELFQENE	3595
Macaca_fascicularis	RALQNKQDSENTEQRIQSLISSLKHMVYEYICRCLFKADQLMFALHFVRGMHPELFQENE	3595
Callithrix_jacchus	RALQNKQDSENTEQRIQSLISSLKHMVYEYICRCLFKADQLMFALHFVRGMHPELFQENE	3593
Xenopus_tropicalis	RILIGKQESKSTDVRIKSLIDALKHMVYEYVCRSLFKADQLMFALHFVRGMHSELFQENE	3584
Rhinatrema_bivittatum	RALLNKQESGNTNIRIKSLISSLKHMVYEYVCRSLFKADQLMFALHFVRGMHPELFQENE	3590
	355035603570358035903600	

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Pavo muticus	WETFTGVVIGDPVRKSDSKRSVHDQIPSWIEQERAYAVASLKTSLPCLYQTLCFEDEGLW	3640
Pavo cristatus	WETFTGVVIGDPVRKSDSKRSVHDQIPSWIEQERAYAVASLKTSLPCLYQTLCFEDEGLW	3640
Gallus_gallus	WETFTGVVIGDPVRKSDSKRSVHDQIPSWIEQERAYAVASLKTSLPCLYQTLGFEDEGLW WETFTGVIIGDPVRKSDSKRSVHDQIPSWIEQERAYAVASLKTSLPCLYQTLGFEDEGLW	3641
		3647
Chelonia_mydas	WDTFTGVIIGDMLRKSDSQRGIRDQIPSWIEQERTWAVASLKISLPALYQTLCFEDADLW WDTFTGVVVGDMLRKADSQQRIRDQLPSWIDQERSWAVATLKISLPGLYQTLCFEDGTLW	3647 3647
Rattus_norvegicus		
Mus_musculus	WDTFTGVVVGDMLRKADSQQRIRDQLPSWIDQERSWAVATLKISLPSLYQTLCLEDGAFW	3647
Bos_taurus_	WDTFTGVVVGDMLRKVDSQQRIRDQLPSWIDQERSWAVATFKIALPSLYQTLCFEDVALW	3655
Equus_caballus	WDTFTGVVVGDMLRKADSQQRIRDQLPSWIDQERSWAVATLKIALPSLYQTLCFEDVALW	3655
Canis_lupus_familiaris	WDTFTGVVVGDMLRKADSQQRIRDQLPSWIDQERSWAVATLKIALPSLYQTLCFDDVALW	3655
Homo_sapiens	WDTFTGVVVGDMLRKADSQQKIRDQLPSWIDQERSWAVATLKIALPSLYQTLCFEDAALW	3648
Pan_troglodytes	WDTFTGVVVGDMLRKADSQQKIRDQLPSWIDQERSWAVATLKIALPSLYQTLCFEDAALW	3655
Macaca_mulatta	WDTFTGVVVGDMLRKADSQQKIRDQLPSWIDQERSWAVATLKIALPSLYQTLCFEDAALW	3655
Macaca_fascicularis	WDTFTGVVVGDMLRKADSQQKIRDQLPSWIDQERSWAVATLKIALPSLYQTLCFEDAALW	3655
Callithrix_jacchus	WETFTGVVVGDMLRKADSQQRIRDQLPSWIDQERSWAVATLKIALPSLYQTLCLEDAALW	3653
Xenopus_tropicalis	WDVFTGVIIGDMFKKSDSQRTLREQVPSWIEQERAWAVALLKTSLPALYQSLSLEDSNLW	3644
Rhinatrema_bivittatum	WDAFTGVIIGDMFRKSDSQKTIRDQIPSWIDQERVWAVALLKASLPVLYQILNLEDANLW	3650
	$\dots 3610 \dots 3620 \dots 3630 \dots 3640 \dots 3650 \dots 3660$	
	: . * ***: * : *.:: ***: * : * : * : * * * : * :	
Pavo_muticus	RTFSQSSVCEQDFPSAIVKRISLFQQVLVVQALRPDRLQSAMALFACKALGIKELSPSPL	3700
Pavo_cristatus	RTFSQSSVCEQDFPSAIVKRISLFQQVLVVQALRPDRLQSAMALFACKALGIKELSPSPL	3700
Gallus_gallus	RTFSQSSVCEQDFPSAIVKRISLFQQVLVVQALRPDRLQSAMALFACKALGIKELSPSPL	3701
Chelonia_mydas	RTFSQS <mark>STCEQ</mark> DFPSIVAKNISLFQQVLVVQAVRPDRLQSSMAVFACKALGIKELSPPPL	3707
Rattus_norvegicus	RTYYHHSMCEQEFPSILAKKVSLFQQVLVVQALRPDRLQSAMALFACKALGLKELSPLPL	3707
Mus_musculus	RTYYHHSMCEQEFPSILAKKVSLFQQVLVVQALRPDRLQSAMALFACKALGLKELSPLPL	3707
Bos_taurus	RTYYHNSMCEQEFPSSLIKKVSLFQQVLVVQTLRPDRLQSAMALFACKILGLKELSPPPL	3715
Equus_caballus	RTYYHNSMCEQEFPSILAKKVTLFQQVLVVQALRPDRLQSAMALFACRTLGLKELSPLPL	3715
Canis_lupus_familiaris	RTYYHSSVCEQEFPSILAKKVSSFQQVLVVQALRPDRLQSAMALFACKTLGLKDLSPLPL	3715
Homo_sapiens	RTYYNNSMCEQEFPSILAKKVSLFQQILVVQALRPDRLQSAMALFACKTLGLKEVSPLPL	3708
Pan_troglodytes	RTYYNNSMCEQEFPSILAKKVSLFQQILVVQALRPDRLQSAMALFACKTLGLKEVSPLPL	3715
Macaca mulatta	RTYYHNSMCEQEFPSILAKKVSLFQQILVVQALRPDRLQSAMALFACKTLGLKEVSPLPL	3715
Macaca_fascicularis	RTYYHNSMCEQEFPSILAKKVSLFQQILVVQALRPDRLQSAMALFACKTLGLKEVSPLPL	3715
Callithrix_jacchus	RTYYHNSMCEQEFPSILAKKVSLFQQILVVQALRPDRLQSAMALFACKTLGLKEVSPLPL	3713
Xenopus_tropicalis	SHFSKSSACEQEFPQTVAKKLSLFQQLLVVQAIRPDRLQSAMGLFACKNLELKELSPPPL	3704
Rhinatrema_bivittatum	LNFSRSSMCEQDFPANIVKKISLFQQVLLIQAIRPDRLQSAMALFACKALEMKELSPPPL	3710
THITITICE CHIA_DIVICCACAM	36703680369037103720	3710
	.**:* :*** **:********* * :*:*:	
Pavo_muticus	NLKHLYKETLETEPILIIISPGADPSQELQELASVERNTECYHQ	3744
Pavo_cristatus	NLKHLYKETLETEPILIIISPGADPSQELQELASVERNTECYHQ	3744
Gallus gallus	NLKRLYKETLETEPVLIIISPGADPSQELQELASVERNTECYHQ	3745
Chelonia_mydas	NLKRLYKETLETEPILITISPGADPSQELQELASVERHGECYHQ	3751
Rattus_norvegicus	NLKRLYKETLEIEPILIIISPGADPSOELOELANAERSSECYHO	3751
Mus musculus	NLKRLYKETLEIEPILIIISPGADPSQELQELASAERSSECYHQ	3751
Bos taurus	NLKRLYKETLEIEPILIIISPGADPSÕELÕELANAERSGECYHÕ	3759
Equus_caballus	SLKRLYKETLEIEPILIIISPGADPSQELQELANAERGGECYHQ	3759
Canis lupus familiaris	NLKRLYKETLEIEPILIIISPGADPSQELQELANAERSGECYHQ	3759
Homo sapiens	NLKRLYKETLEIEPILIIISPGADPSQELQELANAERSGECYHQ	3752
Pan_troglodytes	NLKRLYKETLEIEPILIIISPGADPSQELQELANAERSGECYHQ	3759
Macaca_mulatta	NLKRITKETHETET THITTS GADE SQUELQUELANTERSGECYHQRETGESRAKIGDTMIQ	3775
Macaca fascicularis	NLKRLYRETLEIEPILIIISPGADPSQELQELANTERSGECYHQ	3759
Callithrix jacchus	NLKRLYKETLEIEPILIIISPGADPSQELQELANAERSGECYHQ	3757
Xenopus_tropicalis	NLKRLSKETLAIEPILIIISPGADPSQELQELACAEVGRDCFHE	3748
Rhinatrema bivittatum	NLKRLYKETLEIEPILIIISPGADPSQELQELASIEIGRECYHE	3754
MITHACLEMA_DIVICCACUM	373037403750376037703780	3/34

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Pavo muticus	IAMGQGQADLAIQTLKECARNGEWLCLKNLHLVIP	3779
Pavo cristatus	IAMGQQQQADLAIQTLKECARNGEWLCLKNLHLVIP	3779
Gallus_gallus	IAMGOGOADLAIOTLKECARNGEWLCLKNLHLVIP	3780
Chelonia mydas	VAMGQGQADLAIQTLKECARNGEWLCLKNLHLVVS	3786
Rattus_norvegicus	VAMGQGQADLAIQMLKECARNGDWLCLKNLHLVVS	3786
Mus_musculus	VAM <mark>GQGQ</mark> ADLAIQML <mark>KECARNGD</mark> WLCLKNLHLVVS	3786
Bos_taurus	IAM <mark>GQGQ</mark> ADLAVQML <mark>KEC</mark> ARSGDWLCLKNLHLVVS	3794
Equus_caballus	VAM <mark>GQGQAD</mark> VAIQML <mark>KEC</mark> AH <mark>NGD</mark> WL <mark>CLKNLH</mark> LVV <mark>S</mark>	3794
Canis_lupus_familiaris	VAMGQGQADLAIQMLKECSRNGDWLCLKNLHLVVS	3794
Homo_sapiens	VAM <mark>GQGQ</mark> ADLAIQML <mark>KEC</mark> ARNGDWL <mark>CLKN</mark> LHLVVS	3787
Pan_troglodytes	vam <mark>gqgq</mark> adlai <mark>q</mark> ml <mark>kec</mark> a <mark>rngd</mark> wl <mark>clkn</mark> lhlvvs	3794
Macaca_mulatta	VEVREERICCATGFEDGGTGHKQRNVAMGQGQADLAIQMLKECARNGDWLCLKNLHLVVS	3835
Macaca_fascicularis	vam <mark>gqgqad</mark> lai <mark>qmlkec</mark> a <mark>rngd</mark> wl <mark>clkn</mark> lhlvvs	3794
Callithrix_jacchus	VAM <mark>GQGQAD</mark> LAIQML <mark>QEC</mark> AS <mark>NGD</mark> WL <mark>CLKN</mark> LHLVVS	3792
Xenopus_tropicalis	VAM <mark>GQGQAD</mark> IAIQSLRECARDGEWLCLKNLHLVIS	3783
Rhinatrema_bivittatum	VAMGQGQADLAVQTLRECAVNGEWLCLKNLHLVIA	3789
	379038003810382038303840	
	*** ***** .*** .***** .* .*************	
Pavo muticus	WLPVLEKELNTLOPOPNFRLWLTTEVHPKFTPILLOSSLKITYEAPPGLKKNLLRTYESW	3839
Pavo_muticus Pavo cristatus	WLPVLEKELNTLQPQPNFRLWLTTEVHPKFTPILLQSSLKITYEAPPGLKKNLLRTYESW	3839
Gallus_gallus	WLPVLEKELNTLQPQPNFRLWLTTEVHPKFTPILLQSSLKITYEAPPGLKKNLLRTYESW	3840
Chelonia_mydas	WLPILEKELNTLQPQPNFRLWLTAEVHPKFAPILLQSSLKITYEAPPGLKKNLMRTYESW	3846
Rattus norvegicus	WLPVLEKELNTLOPKESFRLWLTAEVHPNFTPILLOSSLKITYESPPGLKKNLMRTYESW	3846
Mus musculus	WLPVLEKELNTLQPKDSFRLWLTAEVHPNFTPILLQSSLKITYESPPGLKKNLMRTYESW	3846
Bos taurus	WLPVLEKELNTLQPKDTFRLWLTAEVHPSFTPILLQSSLKITYESPPGLKKNLMRTYESW	3854
Equus_caballus	WLPVLEKELNTLQPKDTFRLWLTAEVHPNFTPILLQTSLKITYESPPGLKKNLMRTYESW	3854
Canis_lupus_familiaris	WLPVLEKELNTLQPKDTFRLWLTAEVHPHFTPILLQSSLKITYESPPGLKKNLMRTYESW	3854
Homo_sapiens	WLPVLEKELNTLQPKDTFRLWLTAEVHPNFTPILLQSSLKITYESPPGLKKNLMRTYESW	3847
Pan_troglodytes	WLPVLEKELNTLQPKDTFRLWLTAEVHPNFTPILLQSSLKITYESPPGLKKNLMRTYESW	3854
Macaca mulatta	WLPVLEKELNTLQPKDTFRLWLTAEVHPNFTPILLQSSLKITYESPPGLKKNLMRTYESW	3895
Macaca fascicularis	WLPVLEKELNTLQPKDTFRLWLTAEVHPNFTPILLQSSLKITYESPPGLKKNLMRTYESW	3854
Callithrix_jacchus	WLPVLEKELNTLQPKDTFRLWLTAEAHPNFTPILLQSSLKITYESPPGLKKNLMRTYESW	3852
Xenopus_tropicalis	WLPVLEKELNSLQPKGNFRLWLTAEVHPKFTPILLQSSLKITYEAPPGLKKNLMRTYESW	3843
Rhinatrema bivittatum	WLPTLEKELNTLOPKINFRLWLTAEVHAKFTPILLOSSLKITYEAPPGLKKNLMRTYESW	3849
	385038603870388038903900	
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Pavo_muticus	TPEQINKKGNLSRAHSLFCLAWFHAVCQERRNYIPQGWTKFYEFSLSDLRAGFDIIDRLF	3899
Pavo_cristatus	TPEQINKKGNLSRAHSLFCLAWFHAVCQERRNYIPQGWTKFYEFSLSDLRAGFDIIDRLF	3899
Gallus_gallus	TPEQINKKGNLSRAHSLFCLAWFHAVCQERRNYIPQGWTKFYEFSLSDLRAGFDIIDRLF	3900
Chelonia_mydas	SPEQISKKGNLSRAHALFSLAWFHAACQERRNYIPQGWTKFYEFSLSDLRAGYDVIDGLF	3906
Rattus_norvegicus	TPEQISKKDNIHRAHALFSLAWFHAACQERRNFIPQGWTKFYEFSLSDLRAGYHVIDRLF	3906
Mus_musculus	TPEQISKRDNIHRAHALFSLAWFHAACQERRNYIPQGWTKFYEFSLSDLRAGYHVIDRLF	3906
Bos_taurus	TPEQISKKDNVHRAHALFSFAWFHAACQERRNYIPQGWTKFYEFSLSDLRAGYNIIDRLF	3914
Equus_caballus	TPEQISKKDNIHRAHALFSFAWFHAACQERRNYIPQGWTKFYEFSLSDLRAGYNIIDRLF	3914
Canis_lupus_familiaris	TPEQISKKDNVHRAHALFNFAWFHAACQERRNYIPQGWTKFYEFSLSDLRAGYSIIDRLF	3914
Homo_sapiens	TPEQISKKDNTHRAHALFSLAWFHAACQERRNYIPQGWTKFYEFSLSDLRAGYNIIDRLF TPEQISKKDNIHRAHALFSLAWFHAACQERRNFIPQGWTKFYEFSLSDLRAGYNIIDRLF	3907
Pan_troglodytes		3914
Macaca_mulatta Macaca fascicularis	TPEQISKKDNIHRAHALFSLAWFHAACQERRNYIPQGWTKFYEFSLSDLRAGYNIIDRLF TPEQISKKDNIHRAHALFSLAWFHAACQERRNYIPQGWTKFYEFSLSDLRAGYNIIDRLF	3955 3914
Macaca_Tascicularis Callithrix jacchus	TPEQISKRDNIHRAHALFSLAWFHAACQERRNYIPQGWTKFYEFSLSDLRAGYNIIDRLF TPEQINKKNNIHRAHALFSFAWFHAACQERRNYIPQGWTKFYEFSLSDLRAGYNIIDRLF	3914 3912
Xenopus tropicalis	TPEQINKKNNIHRAHALFSFAWFHAACQERRNYIPQGWTKFYEFSLSDLRAGYNIIDRLF TPEQISKNGOTPRAOALFSLAWFHAVCQERRNYIPQGWTKFYEFSLADLRAAYDIIDRLF	3912
Rhinatrema bivittatum	TPEQISKNGULPRAQALFSLAWFHAVCQERRNYIPQGWTKFYEFSLADLRAAYDIIDRLF TPEQISKNGLLPRAQALFSLAWFHAACQERRNYIPQAWTKFYEFSLSDLRAGYDIIDRLF	3903
MITHACI GMA_DIVICCACUM	391039203930394039503960	3303

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Pavo muticus	EGSKEFQWEFVHGLFENAIYGGRIDNYFDMKVLRSYLEQLFNSSVIGSLNAKGRKMTSFL	3959
Pavo cristatus	EGSKEFOWEFVHGLFENAIYGGRIDNYFDMKVLRSYLEOLFNSSVIGSLNAKGRKMTSFL	3959
Gallus_gallus	EGSKDFQWEFVHGLFENAIYGGRIDNYFDMKVLRSYLEQLFNSSVIGSLNARGRKMTSFL	3960
Chelonia mydas	DGSKDFQWEFVHGLFENAIYGGRIDNYFDMRVLRTYLEQLFNSRVIGGLNLRGKKMTSFP	3966
Rattus norvegicus	DGSKDVQWEFVHGLLENSIYGGRIDNYFDLRVLQSYLKQFFNSSIIDVLNQRN-KKSIFP	3965
Mus musculus	DGTKDVQWEFVHGLLENSIYGGRVDNYFDLRVLQSYLKQFFNSSIIDVLNQRN-KKSIFP	3965
Bos taurus	DGSKDVQWEFVHGLLENAIYGGRIDNYFDLRVLRSYLKQFFNSSIIDVLSERN-KKSVFP	3973
Equus_caballus	DGTKDVQWEFVHGLLENAIYGGRIDNYFDLRVLQSYLKQFFNSSIIDALNQRN-KKSVFP	3973
Canis_lupus_familiaris		3973
Homo sapiens	DGAKDVQWEFVHGLLENAIYGGRIDNYFDLRVLQSYLKQFFNSSVIDVFNQRN-KKSIFP	3966
Pan troglodytes	DGAKDVQWEFVHGLLENAIYGGRIDNYFDLRVLQSYLKQFFNSSVIDVFNQRN-KKSIFP	3973
Macaca mulatta	DGAKDIQWEFVHGLLENAIYGGRIDNYFDLRVLQSYLKQFFNSSVIDVFNQRN-KKSIFP	4014
Macaca fascicularis	DGAKDIOWEFVHGLLENAIYGGRIDNYFDLRVLOSYLKOFFNSSVIDVFNORN-KKSIFP	3973
Callithrix_jacchus	DGTKDIQWEFVQGLLENAIYGGRIDNYFDLRVLQSYLKQFFNSSVIDVFNQRN-KKSICS	3971
Xenopus_tropicalis	EGKRDFKWDFVHGLLENAIYGGRVDNFFDLRVLRSYLEQFFSSHTTGTSGMSKMAAFP	3961
Rhinatrema bivittatum	DGSKDFQWEYVHGLLENAIYGGRVDNYFDLRVLRSYLEQFFNSQVIGGSHLKGKKMTAFP	3969
11111111111111111111111111111111111111	397039803990400040104020	0,000
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Pavo muticus	HSISLPNSCSILDYRHIIESLPEDDKPDFFGLPANIARSSQRMISSQVISQLRILSRSVT	4019
Pavo_cristatus	HSISLPNSCSILDYRHIIESLPEDDKPDFFGLPANIARSSQRMISSQVISQLRILSRSVT	4019
- Gallus_gallus	HSISLPNSCSILDYRHIIESLPEDDKPEFFGLPANIARSSORMISSOVISOLRILSRSVS	4020
Chelonia mydas	YSISLPNSCSILDYRDIIESLPENDKPDFFGLPANIARSSQRMISSLVISQLRILSRSVT	4026
Rattus norvegicus	YSISLPNSCSILDYRAVIEKLPEDDKPSFFGLPANIARSSQRMTSSQVISQLRILGRSVT	4025
Mus musculus	YSISLPNSCSILDYRAVIEKLPEDDKPSFFGLPANIARSSQRMISSQVISQLRILGRSVT	4025
Bos_taurus	YSISLPKSCSILDYRAVIEKLPEDDKPSFFGLPANIARSSQRMISSQVISQLKILGRSVT	4033
Equus caballus	YSLSLPKSCSILDYRAVIEKLPEDDKPSFFGLPANIARSSQRMISSQVISQLRILGRSVT	4033
Canis_lupus_familiaris		4033
Homo_sapiens	YSVSLPOSCSILDYRAVIEKIPEDDKPSFFGLPANIARSSORMISSOVISOLRILGRSIT	4026
Pan_troglodytes	YSVSLPQSCSILDYRAVIEKIPEDDKPSFFGLPANIARSSQRMISSQVISQLRILGRSIT	4033
Macaca mulatta	YSVSLPQSCSILDYRAVIEKLPEDDKPSFFGLPANIARSSQRMISSQVISQLRILGRSIT	4074
Macaca fascicularis	YSVSLPQSCSILDYRAVIEKLPEDDKPSFFGLPANIARSSQRMISSQVISQLRILGRSIT	4033
Callithrix_jacchus	YSVSLPNSCSIVDYRAVIEKLPEDDKPGFFGLPANIARSSQRIISSQVISQLRILGRSVT	4031
Xenopus_tropicalis	LPFSLPNSCSIMDYRAVIESIPEDDQPAFFGLPANIARSSQRMISSQVISQLRTLSRSVT	4021
Rhinatrema bivittatum	L <mark>PISLPSTCSILDYRS</mark> VIESL <mark>PEDDAP</mark> AFFGLPANIARSSQRMISSQVISQLRILSRSVT	4029
_	403040404050406040704080	
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Pavo_muticus	AGCKFDREIWSAELSPILSLWKKLNQNSNLIHQKVTPPVEQQGSPILSFITLEQFSAIRL	4079
Pavo_cristatus	AGCKFDREIWSAELSPILSLWKKLNQNSNLIHQKVTPPVEQQGSPILSFITLEQFSAIRL	4079
Gallus_gallus	AGCKFDREIWSTELSPILSLWKKLNQNSNLIHQKVTPPVERQGSPILSFITLEQFSAIRL	4080
Chelonia_mydas	AGCKFDREIWSNELSPVLNLWKKLNQNSNLIHQKVSPPTEQQGSPILSFIILEQFNAILL	4086
Rattus_norvegicus	AGCKFDREIWSNELSPVLNLWKKLNQNSNLIHQKVSPPNDRQGSPILSFIILEQFNAIRL	4085
Mus_musculus	AGCKFDREIWSNELSPVLNLWKKLNQNSNLIHQKVSPPNDRQGSPILSFIILEQFNAIRL	4085
Bos_taurus	AGCKFDREIWSNELSPVLNLWKKLNQNSNLIHQKLLPPNDRQGSPILSFIILEQFNAIRL	4093
Equus_caballus	AGCKFDREIWSNELSPILSLWKKLNQNSNLIHQKVSPPNDRQGSPIVSFIVLEQFNAIRL	4093
	AGCKFDREIWSNELSPVLNLWKKLNQNSNLIHQKVSPPNDRQGSPILSFIILEQFNAIRL	4093
Homo_sapiens	AGSKFDREIWSNELSPVLNLWKKLNQNSNLIHQKVPPPNDRQGSPILSFIILEQFNAIRL	4086
Pan_troglodytes	AGSKFDREIWSNELSPVLNLWKKLNQNSNLIHQKVPPPNDRQGSPILSFIILEQFNAIRL	4093
Macaca_mulatta	AGSKFDREIWSNELSPVLNLWKKLNQNSNLIHQKVPPPNDRQGSPILSFIILEQFNAIRL	4134
Macaca_fascicularis	AGSKFDREIWSNELSPVLNLWKKLNQNSNLIHQKVPPPNDRQGSPILSFIILEQFNAIRL	4093
Callithrix_jacchus	AGSKFDREIWSNELSPVLNLWKKLNQNSNLIHQKMPPPSDRQGSPILSFIILEQFNAIHL	4091
Xenopus_tropicalis	AGSKFDREVWSNELSPVLNLWKKLNQNSNLIHQKVSPPTERHGSPISSFIILEQFNAIRL	4081
Rhinatrema_bivittatum	AGCKFDREIWSNELSPVLNLWKKLNRNSNLIHQKVSPPNERQGSPILSFIILEQFNAIRL	4089
	$\dots 4090 \dots 4100 \dots 4110 \dots 4120 \dots 4130 \dots 4140$	

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Pavo muticus	VQSVHQSLASLSKVIRGTSLLSSEVQRLASALINQKCPLTWQSKWEGPEDPLQYIRSLVA	4139
Pavo cristatus	VQSVHQSLASLSKVIRGTSLLSSEVQRLASALINQKCPLTWQSKWEGPEDPLQYIRSLVA	4139
Gallus_gallus	VQSVHQSLASLSKVIRGTSLLSSEVQRLASALINQKCPPTWQSKWEGPEDPLQYIRSLVA	4140
Chelonia mydas	VQSVHQSLAALSKVIRGTSLLSSEVQSLASALLNQKCPLTWQSKWEGPDDPLQYLRGLVA	4146
Rattus norvegicus	VQSVHQSLAALSKVIRGTTLLSSEVQKLASALLNQKCPLTWQSKWEGPEDPLQYLRGLVA	4145
Mus musculus	VOSVHOSLAALSKVIRGTTLLSSEVOKLASALLNOKCPLTWOSRWEGPEDPLOYLRGLVA	4145
Bos taurus	VQSVHQSLAALSKVIRGTTLLSSEVQKLASALLNQKCPLTWQSKWEGPEDPLQYLRGLVA	4153
Equus_caballus	VQSVHQSLAALSKVIRGTTLLSSEVQKLASALLNQKCPFTWQSKWEGPEDPLQYLRGLVA	4153
Canis_lupus_familiaris		4153
Homo_sapiens	VQSVHQSLAALSKVIRGTTLLSSEVQKLASALLNQKCPLAWQSKWEGPEDPLQYLRGLVA	4146
Pan troglodytes	VQSVHQSLAALSKVIRGTTLLSSEVQKLASALLNQKCPLAWQSKWEGPEDPLQYLRGLVA	4153
Macaca mulatta	VQSVHQSLAALSKVIRGTTLLSSEVQKLASALLNQKCPLAWQSKWEGPEDPLQYLRGLVA	4194
Macaca_fascicularis	VQSVHQSLAALSKVIRGTTLLSSEVQKLASALLNQKCPLAWQSKWEGPEDPLQYLRGLVA	4153
Callithrix_jacchus	VQSVHQSLAAL <mark>SK</mark> VI <mark>RGTT</mark> LL <mark>SSEVQK</mark> LANALLNQKCPLAWQSKWEGPEDPLQYLRGLVA	4151
Xenopus_tropicalis	VQSIHQSLAALSKVIRGTSLLTSDVQRLASALLEQKCPLAWQNKWEGPEDPLQYLRGLVA	4141
Rhinatrema_bivittatum	VQSIHQSLAAL <mark>SK</mark> VI <mark>RGTS</mark> LL <mark>SSEVQK</mark> LASALLEQKCPLTWQSKWEGPEDPMQYLRSLVA	4149
	$\dots \dots 4150 \dots 4160 \dots 4170 \dots 4180 \dots 4190 \dots 4200$	
D	*::***.**:: *:::.**********************	4100
Pavo_muticus	RALAIQNWVEKAEKQKLLSDTLDLSELFHPDTFLNALRQETARVMSCSVDSLKFTASWKG	4199 4199
Pavo_cristatus	RALAIQNWVEKAEKQKLLSDTLDLSELFHPDTFLNALRQETARVMSCSVDSLKFTASWKG	
Gallus_gallus	RALAIQNWVEKAEKQKLLSDTLDLSELFHPDTFLNALRQETARVMSCSVDSLKFTASWKG	4200
Chelonia_mydas	RALAIONWYDKAEKKTLLSDTLDLSELFHPDTFLNALROETARVMSCSVDNLKFVASWKG RTLAIONWYEKAEKOALLADTLDLSELFHPDTFLNALROETARATGCSVDSLKFVASWKG	4206 4205
Rattus_norvegicus Mus musculus	RTLAIQNWVEKAEKQALLADTLDLSELFHPDTFLNALRQETARATGCSVDSLKFVASWKG RTLAIQNWVEKAEKQVLLADTLDLSELFHPDTFLNALRQETARATGCSVDSLKFVASWKG	4205
Bos_taurus	RILAIQNWVERAEKQVLLADILDLSELFHPDTFLNALRQETARANVCSVDSLKFVASWKG RALAIQSWVERAEKQTLLSDTLDLSELFHPDTFLNALRQETARAMVCSVDSLKFVASWKG	4203
Equus_caballus	RALAIQNWVERAEKQALLSDTLDLSELFHPDTFLNALRQETARAMGCSVDSLKFVASWKG	4213
Canis_lupus_familiaris		4213
Homo_sapiens	RALAIQNWVDKAEKQALLSETLDLSELFHPDTFLNALRQETARAVGRSVDSLKFVASWKG	4213
Pan_troglodytes	RALAIONWVDKAEKOALLSETLDLSELFHPDTFLNALROETARAVGRSVDSLKFVASWKG	4213
Macaca mulatta	RALAIQNWVDKAEKQALLSETLDLSELFHPDTFLNALRQETARAVGRSVDSLKFVASWKG	4254
Macaca_fascicularis	RALAIQNWVDKAEKQALLSETLDLSELFHPDTFLNALRQETARAVGRSVDSLKFVASWKG	4213
Callithrix_jacchus	RAVAIQNWVDKAEKQTLLSETLDLSELFHPDTFLNALRQETARAVGRSVDSLKFVASWKG	4211
Xenopus_tropicalis	RAVAIQNWVEKAENQTLLSDTLDLSELFHPDTFLNALRQETARAMNCSMDNLRFVASWRG	4201
Rhinatrema_bivittatum	RALAIQTWVEKAEKQVLLSDNLDLSELFHPDTFLNALRQETARVMICSMDNLKFVASWKG	4209
Turria Cr Cina_Dr Vr C Ca Cum	421042204230424042504260	1203
	:::.**:: ** ******* :*.** ****: * ** :.* **	4040
Pavo_muticus	RIQEGKLQVKITGLLLEGCSFDGNRLSENLHDSPSVSSVLPCYMAWIPQ	4248
Pavo_cristatus	RIQEGKLQVKITGLLLEGCSFDGNRLSENLHDSPSVSSVLPCYMAWIPQ	4248
Gallus_gallus	RIQEGKLQVKVTGLLLEGCSFDGNRLSENLHDSPSVSSVLPCYMAWIPQ	4249
Chelonia_mydas	QIQEAKLQVKISGLQLEGCSFDGRRLSENQHDSPSVSSVLPCDMGWIPQ	4255
Rattus_norvegicus	RLQEAKLQIKISGLLLEGCSFDGSRLSENQHDSPSVSSVLPCYMGWTPQ	4254
Mus_musculus Bos taurus	RLQEAKLQIKISGLLLEGCSFDGNRLSENQHDSPSVSSVLPCYMGWTPQ RLQEAKLQIKISGLLLEGCSFDGNRLCENQHDSPSVSSVLPCFMGWIPQ	4254 4262
Equus_caballus	RLQEAKLQIKISGLLLEGCSFDGNRLSENQHDSPSVSSVLPCFMGWIPQ	4262
Canis lupus familiaris		4202
Homo sapiens	RLQEAKLQIKISGLLLEGCSFDGNQLSENQLDSPSVSSVLPCFMGWIPQ	4273
Pan_troglodytes	RLQEAKLQIKISGLLLEGCSFDGNQLSENQLDSPSVSSVLPCFMGWIPQ	4262
Macaca_mulatta	RLPEAKLQIKISGLLLEGCSFDGNQLSENQLDSPSVSSVLPCFMGWIPQ	4303
Macaca fascicularis	RLPEAKLQIKISGLLLEGCSFDGNQLSENQLDSPSVSSVLPCFMGWIPQ	4262
Callithrix jacchus	RLQEAKLPIKISGLLLEGCSFDGNRLSENQHDSPSVTSVLPCFMGWIPQ	4262
Xenopus_tropicalis	KIADAKLQVKISGLQLEGCSFDGNRLSENRHDSPSVSVVPPCYMAWIPQ	4250
Rhinatrema bivittatum	RIHEAKLQVKISGLQLEGCSFDGNRLSENQHDSPSVSSVLPCYMAWIPQ	4258
	42704280429043104320	-255

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Pavo_muticus		<mark>D</mark> AYGPYSPE	4257
Pavo_cristatus		<mark>DAYGPYSPE</mark>	4257
Gallus_gallus		<mark>D</mark> AYGPYSPE	4258
Chelonia_mydas		<mark>DAYGPYSPE</mark>	4264
Rattus_norvegicus		GS <mark>YGPYS</mark> PD	4263
Mus_musculus		<mark>G</mark> S <mark>YGPYS</mark> PD	4263
Bos_taurus		AAYGPYSPD	4271
Equus_caballus			4271
Canis_lupus_familiaris	GGWRVPASGPCPHQPRCLETQRKGRSFTKNSWNIKETALEELLE	HYQSEGLGAYGPYSPD	4333
Homo_sapiens		DACGPYSPD	4264
Pan_troglodytes		DACGPYSPD	4271
Macaca_mulatta		DACGPYSPD	4312
Macaca_fascicularis		DACGPYSPD	4271
Callithrix_jacchus			4269
Xenopus_tropicalis		QSLGTYSPE	4259
Rhinatrema_bivittatum			4267
	4330434043504360	43704380	
Pavo muticus	*****:** **: :* *:::*****::***.*********	4300	
Pavo_muticus Pavo cristatus	ECISLPVYTSMERDRVVTNIDVPCGGNQDQWIQCGAALFLKNQ ECISLPVYTSMERDRVVTNIDVPCGGNQDQWIQCGAALFLKNQ	4300	
Gallus gallus	ECISLPVIISMERDRVVINIDVPCGGNQDQWIQCGAALFLKNQ ECISLPVYISMERDRVVINIDVPCGGNODOWIOCGAALFLKNO	4301	
Chelonia mydas	ECISLPVYTSAERDCVVTNLDVPCGGNODOWIOCGAALFLKNO	4307	
Rattus norvegicus	ECISLPVITSAERDCVVINIDVPCGGNQDQWIQCGAALFLKNQ	4306	
Mus musculus	ECISLPVITSAERDCVVINIDVPCGGNQDQWIQCGAALFLKNQ ECISLPVYTSAERERVVTNIDVPCGGNQDQWIQCGAALFLKNQ	4306	
Bos taurus	ECISLPVITSAERERVVINIDVPCGGNQDQWIQCGAALFLKNQ ECISLPVYTSAERDRVVINVSIPCGGNODOWIOCGAALFLKNO	4314	
Equus_caballus	ECISLPVITSAERDRVVINVSIPCGGNQDQWIQCGAALFLKNQ ECISLPVYTSAERDRVVTNIDVPCGGNODOWIOCGAALFLKNO	4314	
Canis lupus familiaris		4376	
Homo sapiens	ECISLPVITSAERDRVVANIDVPCGGNQDQWIQCGAALFLKNQ ECISLPVYTSAERDRVVTNIDVPCGGNQDQWIQCGAALFLKNQ	4307	
Pan troglodytes	ECISLPVITSAERDRVVINIDVPCGGNQDQWIQCGAALFLKNQ ECISLPVYTSAERDRVVINIDVPCGGNODOWIOCGAALFLKNO	4314	
Macaca mulatta	ECISLPVITSAERDRVVINIDVPCGGNQDQWIQCGAALFLKNQ ECISLPVYTSAERDRVVINIDVPCGGNODOWIOCGAALFLKNO	4355	
Macaca_mulatta Macaca fascicularis	ECISLPVYTSAERDRVVTNIDVPCGGNQDQWIQCGAALFLKNQ ECISLPVYTSAERDRVVTNIDVPCGGNQDQWIQCGAALFLKNQ	4314	
Macaca_rascicularis Callithrix jacchus	ECISLPVYTSAERDRVVTNIDVPCGGNQDQWIQCGAALFLKNQ ECISLPVYTSAERDRVVTNIDVPCGGNQDQWIQCGAALFLKTQ	4314	
Xenopus tropicalis	ECISLPMYTSAERDRVVTNIDVPCGGNQDQWIQCGAALFLKIQ ECISLPMYTSAERDRLVTNIDLPCGGNQNKWIQSGAALFLKNQ	4312	
Rhinatrema bivittatum	ECISLPWYTSAERDRLVTNIDLPCGGNQNKWIQSGAALFLKNQ ECISLPVYTSAERDRVVTNIDVPCGGNQDQWIQCGAALFLKNQ	4310	
KIIIIIatrema_DIVIttatum		431U	
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