

CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/SLC4A11.fst Tue Feb 1 14:33:28 2022

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		:		**:*:*:***::****:*****:***:*****:***	
Pavo_muticus	-----MGCCSS-----	AAQSSKREWKPLEDHSCTDVPWLLLFILFCIGMGFICGFTIATG	50		
Pavo_cristatus	-----MGCCSS-----	AAQSSKREWKPLEDHSCTDVPWLLLFILFCIGMGFICGFTIATG	50		
Gallus_gallus	-----MGCCSS-----	AAQSSKREWKPLEDHSCTDVPWLLLFILFCIGMGFICGFTIATG	50		
Anas_platyrhynchos	-----MGCCSS-----	AAQSSKREWKPLEDHSCTDVPWLLLFILFCVGMGFICGFSIATG	50		
Chelonia_mydas	-----MGCCSS-----	AAHSSKREWKPLEDRSCTDIPWLLLFILFCVGMGFICGFSIATG	50		
Rattus_norvegicus	---MRFGGTSHPYPQIQTSSKREWKPLEDRSCTDIPWLLLFVLF	CIGMGFICGFSVATG	57		
Mus_musculus	-----MGCCSS---	ASAAQSSKREWKPLEDRSCTDIPWLLLFVLF	CIGMGFICGFSVATG	52	
Homo_sapiens	-----MGCCSS---	ASSAAQSSKREWKPLEDRSCTDIPWLLLFILFCIGMGFICGFSIATG	53		
Pan_troglodytes	-----MGCCSS---	ASSAAQSSKREWKPLEDRSCTDIPWLLLFILFCIGMGFICGFSIATG	53		
Macaca_mulatta	-----MGCCSS---	ASSAAQSSKREWKPLEDRSCTDIPWLLLFILFCIGMGFICGFSIATG	53		
Callithrix_jacchus	-----MGCCSS---	ASSAAQSSKREWKPLEDRSCTDIPWLLLFILFCIGMGFICGFSIATG	53		
Canis_lupus_familiaris	-----MGCCSS---	ASSAAQSSKREWKPLEDRSCTDIPWLLLFILFCIGMGFICGFSVATG	53		
Equus_caballus	-----MGCCSS---	ASSAAQSSKREWKPLEDRSCTDIPWLLLFILFCIGMGFICGFSVATG	53		
Bos_taurus	MITNRIVLKIKAVDLEQVKS	SKREWKPLEDRSCTDIPWLLLFILFCIGMGFICGFSVATG	60		
Xenopus_tropicalis	-----MGCCGS-----	TQSSKRDWRPLEEHSCTDIPWLLLFILFCVGMGFICGFSIATG	49		
Rhinatrema_bivittatum	-----MGCCGS-----	TQSSRREWKPLEEHSCTDVPWLLLFVLF	CIGMGFICGFSIATG	49	
	1.....10.....20.....30.....40.....50.....60				

	:*:*:***:.*.:... **:*.*::*****:.*:..:****:***	
Pavo_muticus	AAARLLSGYDSYGNICGQKNVKEGIVNSGLDLTQKKYVFFLDPCNIDIVHOKIKSLALC	110
Pavo_cristatus	AAARLLSGYDSYGNICGQKNVKEGIVNSGLDLTQKKYVFFLDPCNIDIVHOKIKSLALC	110
Gallus_gallus	AAARLLSGYDSYGNICGQKNVKEGIVNSGLDLTQKKYVFFLDPCNIDLHVHOKIKSLALC	110
Anas_platyrhynchos	AAARLLSGYDSYGNICGQKNVKEGIVNSGLDLTQKKYVFFLDPCNIDIVHOKIKSLALC	110
Chelonia_mydas	AAARLVSGYDSYGNICGQKNVKGIVNSGLDLTQKKYVFFLDPCNVDLVHRRKIKSIALC	110
Rattus_norvegicus	AAARLVSGYDSYGNICGQKNVKEGIVNSGLDHTHRKYVFFLDPCNLDLINRKIKSMALC	117
Mus_musculus	AAARLVSGYDSYGNICGQKNVKEGIVNSGLDHTHRKYVFFLDPCNLDLINRKIKSIALC	112
Homo_sapiens	AAARLVSGYDSYGNICGQKNVKEGIVNSGLDHTHRKYVFFLDPCNLDLINRKIKSIALC	113
Pan_troglodytes	AAARLVSGYDSYGNICGQKNVKEGIVNSGLDHTHRKYVFFLDPCNLDLINRKIKSIALC	113
Macaca_mulatta	AAARLVSGYDSYGNICGQKNVKEGIVNSGLDHTHRKYVFFLDPCNLDLINRKIKSIALC	113
Callithrix_jacchus	AAARLVSGYDSYGNICGQKNVKEGIVNSGLDHTHRKYVFFLDPCNLDLINRKIKSIALC	113
Canis_lupus_familiaris	AAARLVSGYDSYGNICGQKNVKEGIVNSGLDHTHRKYVFFLDPCNLDLINRKIKSIALC	113
Equus_caballus	AAARLVSGYDSYGNICGQKNVKEGIVNSGLDHTHRKYVFFLDPCNLDLINRKIKSIALC	113
Bos_taurus	AAARLVSGYDSYGNICGQKNVKEGIVNSGLDHTHRKYVFFLDPCNLDLINRKIKSIALC	120
Xenopus_tropicalis	AASRLVSGYDSYGNICGQKNVKEGIVNSGLDHTHRKYVFFLDPCNLDLINRKIKSIALC	109
Rhinatrema_bivittatum	AASRLVSGYDSYGNICGQKNVKEGIVNSGLDHTHRKYVFFLDPCNLDLINRKIKSIALC	109

	*: ***:*:*: **:**** ** *	.*:.*: :	*** **	*****
Pavo_muticus	VSACPRKELKTLADVQKFAETNGSTLCSYELL	PSEYTTDPRAAKLCPKYPVP	ESAPIPFF	170
Pavo_cristatus	VSACPRKELKTLADVQKFAETNGSTLCSYELL	PSEYTTDPRAAKLCPKYPVP	ESAPIPFF	170
Gallus_gallus	VSACPRKELKTLADVQKFAETNGSTLCSYELL	PSEYTTDPRAAKLCPKYPVP	ESAPIPFF	170
Anas_platyrhynchos	VSACPRKELKTLADVQKFAETNGSTLCSYEL	PSYTTDPRAAKLCPKYPVP	ESAPIPFF	170
Chelonia_mydas	VAACPRKELKTLADVQKFAETNGSNLCSYEL	QSEYTTDSQAKLCPKLPVP	ESAPIPFF	170
Rattus_norvegicus	VAACPRQELKTLSDVQKFAEINGSALCSY	NIKPSEYTLTAKSSAF	CPKLPVPASAPIPFF	177
Mus_musculus	VAACPRQELKTLSDVQKFAEINGSALCSY	NIKPSEYTLTAKSSG	FCPKLPVPASAPIPFF	172
Homo_sapiens	VAACPRQELKTLSDVQKFAEINGSALCSY	NLKPSEYTTSPKSSV	LCPKLPVPASAPIPFF	173
Pan_troglodytes	VAACPRQELKTLSDVQKFAEINGSALCSY	NLKPSEYTTSPKSSV	LCPKLPVPASAPIPFF	173
Macaca_mulatta	VAACPRQELKTLSDVQKFAEINGSALCSY	NLKPSEYTTSPKSSV	LCPKLPVPASAPIPFF	173
Callithrix_jacchus	VAACPRQELKTLSDVQKFAEINGSALCSY	NLKPSEYTTSPKSSV	LCPKLPVPASAPIPFF	173
Canis_lupus_familiaris	VTACPRQELKTLSDVQKFAEINGSALCSY	NLKPSEYTTSPKSSV	LCPKLPVPASAPIPFF	173
Equus_caballus	VAACPRQELKTLSDVQKFAETNGSALCTY	DLKPSEYTTSPKSSV	LCPKLPVPASAPIPFF	173
Bos_taurus	VAACPRQELKTLSDVQKFAEINGSALCSY	DLKPSEYASS-KAKGL	CPKLPVPASAPIPFF	179
Xenopus_tropicalis	VSECPREELQTLNDVKKFAETNGSALCDY	SLTPSQYTTDSSASSL	CPKLPVPKSAPIPFF	169
Rhinatrema_bivittatum	VSACPRQELNLTADVKKFAENNGSALCSY	ELKPSQYTTDKRASSW	CPKLPVLASAPIPFF	169
130.....140.....150.....160.....170.....180			

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*****.*****.****.*****
Pavo_muticus      HRCAPVNISCYAKFAEALITFVSDSSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 230
Pavo_cristatus    HRCAPVNISCYAKFAEALITFVSDSSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 230
Gallus_gallus     HRCAPVNISCYAKFAEALITFVSDSSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 230
Anas_platyrhynchos HRCAPVNISCYAKFAEALITFVSDSSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 230
Chelonia_mydas    HRCAPVNISCYAKFAEALITFVSDSSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 230
Rattus_norvegicus HRCAPVNISCYAKFAEALITFVSDNSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 237
Mus_musculus      HRCAPVNISCYAKFAEALITFVSDNSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 232
Homo_sapiens      HRCAPVNISCYAKFAEALITFVSDNSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 233
Pan_troglodytes   HRCAPVNISCYAKFAEALITFVSDNSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 233
Macaca_mulatta    HRCAPVNISCYAKFAEALITFVSDNSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 233
Callithrix_jacchus HRCAPVNISCYAKFAEALITFVSDNSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 233
Canis_lupus_familiaris HRCAPVNISCYAKFAEALITFVSDNSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 233
Equus_caballus    HRCAPVNISCYAKFAEALITFVSDNSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 233
Bos_taurus        HRCAPVNISCYAKFAEALITFVSDNSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 239
Xenopus_tropicalis HRCAPVNISCYAKFAEALITFVSDNSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 229
Rhinatrema_bivittatum HRCAPVNISCYAKFAEALITFVSDNSVLHRLISGVMTSKEIIMGLCLLSVLVLSMILMVII 229
.....190.....200.....210.....220.....230.....240

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*****:*****:*.:::*.:::*****.::: . : *::: **:***:***
Pavo_muticus      RYISRVLVWILTILVILGSLGGTGVLWWLYAKEQ----MSASAVETQIAKENLQALLIYA 286
Pavo_cristatus    RYISRVLVWILTILVILGSLGGTGVLWWLYAKER----MSASAVETQIAKENLQALLIYA 286
Gallus_gallus     RYISRVLVWILTILVILGSLGGTGVLWWLYAKER----MSASTVETQIAKENLQALLIYA 286
Anas_platyrhynchos RYISRVLVWILTIIIVILGSLGGTGVLWWLYAKQR----ISASTVESQIAKENLQALLIYA 286
Chelonia_mydas    RYISRVLVWILTILVILGSLGGTGVLWWLYAKQRNFVNETLTADQLQVAKDNLQALLVYA 290
Rattus_norvegicus RYISRVLVWILTILVILGSLGGTGVLWWLYAKQRRSPKETVIPEQLQIAEDNLRALLIYA 297
Mus_musculus      RYISRVLVWILTIVLILGSLGGTGVLWWLYAKQRRSPKEAVIPEQLQIAEDNLRALLIYA 292
Homo_sapiens      RYISRVLVWILTILVILGSLGGTGVLWWLYAKQRRSPKETVTIPEQLQIAEDNLRALLIYA 293
Pan_troglodytes   RYISRVLVWILTILVILGSLGGTGVLWWLYAKQRRSPKETVTIPEQLQIAEDNLRALLIYA 293
Macaca_mulatta    RYISRVLVWILTILVILGSLGGTGVLWWLYAKQRRSPKETITPEQLQIAEDNLRALLIYA 293
Callithrix_jacchus RYISRVLVWILTILVILGSLGGTGVLWWLYAKQRRSPKETVIPEQLQIAEDNLRALLIYA 293
Canis_lupus_familiaris RYISRVLVWILTILVILGSLGGTGVLWWLYAKQRRSPKETVIPEQLQIAEDNLRALLIYA 293
Equus_caballus    RYISRVLVWIVTILVILGSLGGTGVLWWLYAKQRRSPKEAVLPEQLQIAEDNLRALLIYA 293
Bos_taurus        RYISRVLVWILTILVILGSLAGTGVLWWLYAKQRKSPKETVIPDQPOVAEANLRALLIYA 299
Xenopus_tropicalis RYISRVLVWIIITILVILGSLGGTGVLWWLYADKKKSFNENLPDQLQVSKDNLQALLVYA 289
Rhinatrema_bivittatum RYISRVLVWILTILVILGSIGGTGVLWWLYASHKRSFNTILPADQLQISKDNLKALLIYA 289
.....250.....260.....270.....280.....290.....300

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:::*****:*.:::*****.*****.*****.:::*** **
Pavo_muticus      ISATVFTVILLIMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFVLILFWTYWT 346
Pavo_cristatus    ISATVFTVILLIMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFVLILFWTYWT 346
Gallus_gallus     ISATVFTVILLIMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFVLILFWTYWT 346
Anas_platyrhynchos ISATVFTVILFLIMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFVLILFWTYWI 346
Chelonia_mydas    ISATVFTVILFLIMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFALILFWSYWI 350
Rattus_norvegicus ISATVFTVILFLIMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFALVLFWAYWI 357
Mus_musculus      ISATVFTVILFLIMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFALVLFWAYWI 352
Homo_sapiens      ISATVFTVILFLIMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFALVLFVWYWI 353
Pan_troglodytes   ISATVFTVILFLIMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFALVLFVWYWI 353
Macaca_mulatta    ISATVFTVILFLIMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFALVLFWAYWI 353
Callithrix_jacchus ISATVFTVILFLIMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFALVLFVWYWI 353
Canis_lupus_familiaris ISATVFTVILFLIMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFALVLFWAYWI 353
Equus_caballus    VSATVFTVILFLIMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFALVLFVWYWI 353
Bos_taurus        ISATVFTVILFLVLMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFALVLFVWYWI 359
Xenopus_tropicalis IAATVFTVILLMLIMRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFALLLFVWYVW 349
Rhinatrema_bivittatum IAATVFTVILFLIMLILRKRVALTIALFHVAGKVFIHLPLLVFQPFWTFFALILFWIYVW 349
.....310.....320.....330.....340.....350.....360

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*****:.. *:****:: **:*:*****:*****:*****:*****
Pavo_muticus      TVLLFLGTTGNVPVNEEGFVEFRMAGPLKYMWWYHVVGLIWISEFILACQOMTVAGAVVT 406
Pavo_cristatus    TVLLFLGTTGNVPVNEEGFVEFRMAGPLKYMWWYHVVGLIWISEFILACQOMTVAGAVVT 406
Gallus_gallus     TVLLFLGTTGNVPVNEEGFVEFRVAGPLKYMWWYHVLVGLIWISEFILACQOMTVAGAVVT 406
Anas_platyrhynchos TVLLFLGTTGNVPVNEEGFVEFRMVGPLKYMWWYHVVGLIWISEFILACQOMTVAGAVVT 406
Chelonia_mydas    MVLLFLGTTGSPVLNEQGFVEFRVLGPLRYMWWYHVVGLIWISEFILACQOMTVAGAVVT 410
Rattus_norvegicus MTLFLGTTGSAVQNEQGFVEYKISGPLQYMWWYHVVGLIWISEFILACQOMTVAGAVVT 417
Mus_musculus      MTLFLGTTGSAVQNEQGFVEYKISGPLQYMWWYHVVGLIWISEFILACQOMTVAGAVVT 412
Homo_sapiens      MTLFLGTTGSPVQNEQGFVEFKISGPLQYMWWYHVVGLIWISEFILACQOMTVAGAVVT 413
Pan_troglodytes   MTLFLGTTGSPVQNEQGFVEFKISGPLQYMWWYHVVGLIWISEFILACQOMTVAGAVVT 413
Macaca_mulatta    MTLFLGTTGSPVQNEQGFVEFKISGPLQYMWWYHVVGLIWISEFILACQOMTVAGAVVT 413
Callithrix_jacchus MTLFLGTTGSAVQNDQGFVEFKISGPLQYMWWYHVVGLIWISEFILACQOMTVAGAVVT 413
Canis_lupus_familiaris MTLFLGTTGSAVQNEQGFVEFKVSGPLOYMWWYHVVGLIWISEFILACQOMTVAGAVVT 413
Equus_caballus    MTLFLGTTGSAVQNDQGFVEFRVSGPLOYMWWYHVVGLIWISEFILACQOMTVAGAVVT 413
Bos_taurus        MTLFLGTTGSAVQNEQGFVEFKMSGPLOYMWWYHVVGLIWISEFILACQOMTVAGAVVT 419
Xenopus_tropicalis MVLLFLGTAGDPSTNEQGFVEFRINGPLOYMWWYHVLVGLIWISEFILACQOMTIAGAVVT 409
Rhinatrema_bivittatum MVLLFLGTTGDPVQNEQGFVEFRVTGPLQYMWWYHVLVGLIWISEFILACQOMTIAGAVVT 409
.....370.....380.....390.....400.....410.....420

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*****:.*:*****.*:***: **:*:*****:*****:*****:***:.*:*****.*
Pavo_muticus      YYFTREKRNLPFTPILASVNRLVCYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 466
Pavo_cristatus    YYFTREKRNLPFTPILASVNRLVCYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 466
Gallus_gallus     YYFTREKRNLPFTPILASVNRLVCYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 466
Anas_platyrhynchos YYFTREKRNLPFTPILASVNRLVCYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 466
Chelonia_mydas    YYFTREKRNLPFTPILASVNRLVCYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 470
Rattus_norvegicus YYFTRDKNRLPFTPILASVNRLIRYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 477
Mus_musculus      YYFTRDKNRLPFTPILASVNRLIRYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 472
Homo_sapiens      YYFTRDKNRLPFTPILASVNRLIRYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 473
Pan_troglodytes   YYFTRDKNRLPFTPILASVNRLIRYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 473
Macaca_mulatta    YYFTRDKNRLPFTPILASVNRLIRYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 473
Callithrix_jacchus YYFTRDKNRLPFTPILASVNRLIRYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 473
Canis_lupus_familiaris YYFTRDKNRLPFTPILASVNRLIRYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 473
Equus_caballus    YYFTRDKNRLPFTPILASVNRLIRYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 473
Bos_taurus        YYFTRDKNRLPFTPILASVNRLIRYHLGTVAKGSFIITLVKIPRMILMYIHTQLKGKENA 479
Xenopus_tropicalis YYFTRNKNDLPFTPILASVNRLIRYHLGTVAKGAFIITLVKIPRMILMYIHTQLKGKENA 469
Rhinatrema_bivittatum YYFTRDKNRLPFTPILASVNRLIRYHLGTVAKGAFIITLVKIPRMILMYIHTQLKGKENA 469
.....430.....440.....450.....460.....470.....480

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*****:.*:*****:*****:*****:*****:*****:*****:*****:*****
Pavo_muticus      CARCMLKACICCLWCLEKCLTYLNQAYTATAINSTNFCTSAKDADFVILVENALRVAAIN 526
Pavo_cristatus    CARCMLKACICCLWCLEKCLTYLNQAYTATAINSTNFCTSAKDADFVILVENALRVAAIN 526
Gallus_gallus     CARCMLKACICCLWCLEKCLTYLNQAYTATAINSTNFCTSAKDADFVILVENALRVAAIN 526
Anas_platyrhynchos CARCMLKACICCLWCLEKCLTYLNQAYTATAINSTNFCTSAKDADFVILVENALRVAAIN 526
Chelonia_mydas    CARCMLKACICCLWCLEKCLTYLNQAYTATAINSTNFCTSAKDADFVILVENALRVAAIN 530
Rattus_norvegicus CARCMLKSCICCLWCLEKCLSYLNQAYTATAINSTNFCTSAKDADFVILVENALRVAAIN 537
Mus_musculus      CARCMLKSCICCLWCLEKCLSYLNQAYTATAINSTNFCTSAKDADFVILVENALRVAAIN 532
Homo_sapiens      CARCVLKSCICCLWCLEKCLNYLNQAYTATAINSTNFCTSAKDADFVILVENALRVATIN 533
Pan_troglodytes   CARCVLKSCICCLWCLEKCLNYLNQAYTATAINSTNFCTSAKDADFVILVENALRVATIN 533
Macaca_mulatta    CARCVLKSCICCLWCLEKCLNYLNQAYTATAINSTNFCTSAKDADFVILVENALRVATIN 533
Callithrix_jacchus CARCVLKSCICCLWCLEKCLNYLNQAYTATAINSTNFCTSAKDADFVILVENALRVATIN 533
Canis_lupus_familiaris CARCVLKSCICCLWCLEKCLNYLNQAYTATAINSTNFCTSAKDADFVILVENALRVAAIN 533
Equus_caballus    CARCVLKSCICCLWCLEKCLNYLNQAYTATAINSTNFCTSAKDADFVILVENALRVAAIN 533
Bos_taurus        CARCVLKSCICCLWCLEKCLNYLNQAYTATAINSTNFCTSAKDADFVILVENALRVAAIN 539
Xenopus_tropicalis CARCMLKSCICCLWCLEKCLAYLNQAYTATAINSTNFCTSAKDADFVILVENALRVAAIN 529
Rhinatrema_bivittatum CARCMLKACICCLWCLEKCLTYLNQAYTATAINSTNFCTSAKDADFVILVENALRVAAIN 529
.....490.....500.....510.....520.....530.....540

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*****:*****:***.*****.:*****:***.*****:*****
Pavo_muticus      TVGDFMLFLGKVLIVCSTGLAGIMLLNYQRDYTTWVLP LIIVCLFAFLVAHCFLSIYEMV 586
Pavo_cristatus    TVGDFMLFLGKVLIVCSTGLAGIMLLNYQRDYTTWVLP LIIVCLFAFLVAHCFLSIYEMV 586
Gallus_gallus     TVGDFMLFLGKVLIVCSTGLAGIMLLNYQRDYTTWVLP LIIVCLFAFLVAHCFLSIYEMV 586
Anas_platyrhynchos TVGDFMLFLGKVLIVCSTGLAGIMLLNYQRDYTVWVLP LIIVCLFAFLVAHCFLSIYEMV 586
Chelonia_mydas    TVGDFMLFLGKVLIVCSTGLAGVMLLNYQRDYTVWVLP LIIVCLFAFLVAHCFLSIYEMV 590
Rattus_norvegicus TVGDFMLFLGKVLIVCSTGLAGIMLLNYQDYTVWVLP LIIVCLFAFLVAHCFLSIYEMV 597
Mus_musculus      TVGDFMLFLGKVLIVCSTGLAGIMLLNYQDYTVWVLP LIIVCLFAFLVAHCFLSIYEMV 592
Homo_sapiens      TVGDFMLFLGKVLIVCSTGLAGIMLLNYQDYTVWVLP LIIVCLFAFLVAHCFLSIYEMV 593
Pan_troglodytes   TVGDFMLFLGKVLIVCSTGLAGIMLLNYQDYTVWVLP LIIVCLFAFLVAHCFLSIYEMV 593
Macaca_mulatta    TVGDFMLFLGKVLIVCSTGLAGIMLLNYQDYTVWVLP LIIVCLFAFLVAHCFLSIYEMV 593
Callithrix_jacchus TVGDFMLFLGKVLIVCSTGLAGIMLLNYQDYTVWVLP LIIVCLFAFLVAHCFLSIYEMV 593
Canis_lupus_familiaris TVGDFMLFLGKVLIVCSTGLAGIMLLNYQDYTVWVLP LIIVCLFAFLVAHCFLSIYEMV 593
Equus_caballus    TVGDFMLFLGKVLIVCSTGLAGIMLLNYQDYTVWVLP LIIVCLFAFLVAHCFLSIYEMV 593
Bos_taurus        TVGDFMLFLGKVLIVCSTGLAGVMLLNYQDYTVWVLP LIIVCLFAFLVAHCFLSIYEMV 599
Xenopus_tropicalis TVGDFMLFLGKILIVSSTGLAGVMLLNYQRDYTVWVLP LIIVCLFAFLVAHCFLSIYEMV 589
Rhinatrema_bivittatum TVGDFVFLFLGKVLIVCSTGLVGVMLLNYQRDYTVWVLP LIIVCLFAFLVAHCFLSIYEMV 589
.....550.....560.....570.....580.....590.....600
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*****:*****:*****:*****.***: :..* .*:*****
Pavo_muticus      VDVLFCLFAIDTKYNDGSPGREFYMDKVLMEFVENSRKSMREAGRGGGAEGRELKPMASG 646
Pavo_cristatus    VDVLFCLFAIDTKYNDGSPGREFYMDKVLMEFVENSRKSMREAGRGGGAEGRELKPMASG 646
Gallus_gallus     VDVLFCLFAIDTKYNDGSPGREFYMDKVLMEFVENSRKSMREAGRGGGAEGRELKPMASG 646
Anas_platyrhynchos VDVLFCLFAIDTKYNDGSPGREFYMDKVLMEFVENSRKSMKEAGRGGGAEGRELKPMASG 646
Chelonia_mydas    VDVLFCLFAIDTKYNDGSPGREFYMDKILMEFVENSRKSMKEAGRGGGAEGRELKPMVGA 650
Rattus_norvegicus VDVLFCLFAIDTKYNDGSPGREFYMDKVLMEFVENSRKAMKEAGKGAADARELKPMVGG 657
Mus_musculus      VDVLFCLFAIDTKYNDGSPGREFYMDKVLMEFVENSRKAMKEAGKGAADARELKPMILRK 652
Homo_sapiens      VDVLFCLFAIDTKYNDGSPGREFYMDKVLMEFVENSRKAMKEAGKGGVADSRELKPMASG 653
Pan_troglodytes   VDVLFCLFAIDTKYNDGSPGREFYMDKVLMEFVENSRKAMKEAGKGGVADARELKPMVGG 653
Macaca_mulatta    VDVLFCLFAIDTKYNDGSPGREFYMDKVLMEFVENSRKAMKEAGKGGVADARELKPMVGG 653
Callithrix_jacchus VDVLFCLFAIDTKYNDGSPGREFYMDKVLMEFVENSRKAMKEAGKGGVADARELKPMVGG 653
Canis_lupus_familiaris VDVLFCLFAIDTKYNDGSPGREFYMDKVLMEFVENSRKAMKEAGKGGVADARELKPMVGG 653
Equus_caballus    VDVLFCLFAIDTKYNDGSPGREFYMDKVLMEFVENSRKAMKEAGKGGVADARELKPMVGG 653
Bos_taurus        VDVLFCLFAVDTKYNDGSPGREFYMDKVLMEFVENSRKAMKEAGKGGVADARELKPMVGG 659
Xenopus_tropicalis VDVLFCLFAIDTKYNDGSPGKEFYMDKVLMEFVENSRRAMKEPG--SAAEGRELKPMASG 647
Rhinatrema_bivittatum VDVLFCLFAIDTKYNDGSPGKEFYMDKILMEFVESRKAAKDTGRGGGAEGRELKPMAPG 649
.....610.....620.....630.....640.....650.....660
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-----ASSS-----
Pavo_muticus      -----ASSS----- 650
Pavo_cristatus    -----ASSS----- 650
Gallus_gallus     -----ASSS----- 650
Anas_platyrhynchos -----ASSS----- 650
Chelonia_mydas    DEEVAILQEFHFYFLSLSVFTDCTSSGEVFVLCITQDVLLFLFVSLPIITWMAEFLSQLRP 710
Rattus_norvegicus DEEVAALHDFPFHFHFSVCVFTDCTSSGEAFVVCITQDMLLFLFACLPITWMAEFLSQLRL 717
Mus_musculus      R----- 653
Homo_sapiens      -----ASSA----- 657
Pan_troglodytes   DEEVAALQEFHFHFLSLSVFTDCTSSGEAFVICITQDMLLFLFVCLPIITWMAEFLSQLRP 713
Macaca_mulatta    DEEVAALQEFHFHFLSLSVFTDCTSSGEAFVICITQDMLLFLFVCLPIITWMAEFLSQLRP 713
Callithrix_jacchus DEEVATLQEFHFHFLSLSVFTDCTSSGEAFVICITQDMLLFLFVCLPIITWMAEFLSQLRP 713
Canis_lupus_familiaris DEAVAGLQEFHFHFLSLSVFTDCTSSGEALVICITQDMLLFLFVCLPIITWIAEFLSQLRS 713
Equus_caballus    HAQGATLPEFHFHFLSLSVFTDCTSSGEAFVICITQDMLLFLFVCLPIITWMAEFLSQLRP 713
Bos_taurus        DKGAALQEFHFHFLSLSLFTDCACSGEAVVICITQDMLLFLFVCLPIITWMAEFLSQLRP 719
Xenopus_tropicalis -----TSTA----- 651
Rhinatrema_bivittatum -----TSSA----- 653
.....670.....680.....690.....700.....710.....720
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CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep_msa/SLC04A1.fasta Tue Feb 1 14:33:28 2022

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Pavo_muticus	-----	650
Pavo_cristatus	-----	650
Gallus_gallus	-----	650
Anas_platyrhynchos	-----	650
Chelonia_mydas	SPVKVS-----	716
Rattus_norvegicus	PPVKAS-----	723
Mus_musculus	-----	653
Homo_sapiens	-----	657
Pan_troglodytes	PSIKVS-----	719
Macaca_mulatta	PSVKVS-----	719
Callithrix_jacchus	PSVKASGASSA	724
Canis_lupus_familiaris	PSVKVS-----	719
Equus_caballus	PSVKVS-----	719
Bos_taurus	PSVKVS-----	725
Xenopus_tropicalis	-----	651
Rhinatrema_bivittatum	-----	653
730.	