

File: /media/morpheus/disk1/fst/pep\_msa/SLCD4A2.fst Tue Feb 14 14:32:30 2022  
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Pavo_muticus	F	K	M	E	T	H	N	-K	L	A	S	I	D	S	O	K	L	V	G	H	-Q	R	T	L	L	D	F	M	E	Q	N	E	G	G	T	P	D	S	P	T	S	M	K	R	E	A	E	H	N	A	T	E	E	H		117		
Pavo_cristatus	F	K	M	E	T	H	N	-K	L	A	S	I	D	S	O	K	L	V	G	H	-Q	R	T	L	L	D	F	M	E	Q	N	E	G	G	T	P	D	S	P	T	S	M	K	R	E	A	E	H	N	A	T	E	E	H		117		
Gallus_gallus	F	K	M	E	T	H	S	-K	V	L	A	S	I	L	E	S	O	K	L	V	G	H	-Q	R	T	L	L	D	F	M	E	Q	N	E	G	S	T	P	D	S	P	T	S	M	K	H	E	A	E	H	N	A	T	E	E	H		117
Anas_platyrhynchos	F	K	T	E	P	H	S	-K	V	L	A	S	I	D	S	O	K	Q	V	G	H	-Q	R	T	L	L	D	F	K	E	Q	N	E	D	G	V	P	D	P	T	S	M	K	Y	E	A	E	H	G	N	A	T	-D	H		116		
Chelonia_mydas	F	K	M	E	P	H	S	-T	E	M	T	S	I	L	G	S	O	K	S	M	H	G	H	-Q	R	T	L	L	D	V	K	E	Q	N	Q	N	G	T	P	D	P	I	S	M	K	Y	E	T	E	H	N	A	K	G	H		117	
Mus_musculus	T	E	T	D	S	Q	S	N	R	G	E	A	S	D	M	S	G	P	R	V	A	Q	G	H	R	O	R	T	L	L	D	L	N	K	I	R	D	Y	T	P	O	P	P	A	S	Q	E	D	C	A	E	N	--S	T	E	H		116
Rattus_norvegicus	T	E	T	Y	S	O	N	N	R	G	E	A	S	D	T	G	P	R	A	A	P	G	H	R	O	R	T	L	L	D	L	N	K	I	R	D	Y	T	P	O	P	P	A	S	Q	E	D	R	S	E	N	--G	T	D	H		116	
Homo_sapiens	S	E	T	D	T	Q	S	-T	G	E	A	S	V	V	S	G	P	R	V	A	Q	G	Y	H	O	R	T	L	L	D	L	N	K	I	L	D	Y	T	P	O	P	P	L	S	K	E	G	E	S	E	N	--S	T	D	H		115	
Pan_troglodytes	S	E	T	D	T	Q	S	-T	G	E	A	S	V	V	S	G	P	R	V	A	Q	G	Y	H	O	R	T	L	L	D	L	N	K	I	L	D	Y	T	P	O	P	P	L	S	K	E	G	E	S	E	N	--S	T	D	H		115	
Macaca_mulatta	S	E	T	D	T	Q	S	-T	G	E	A	S	V	V	S	G	P	R	V	A	Q	G	Y	R	O	R	T	L	L	D	L	N	K	I	Q	D	Y	T	P	O	P	P	I	P	K	E	G	E	S	E	N	--S	T	D	H		115	
Callithrix_jacchus	S	E	T	D	T	Q	S	-T	G	E	A	S	V	V	S	G	P	R	A	A	Q	G	Y	H	O	R	T	L	L	D	L	N	K	I	R	D	Y	T	P	O	P	P	L	S	K	E	D	E	S	E	N	--S	T	D	H		115	
Bos_taurus	S	E	T	E	T	Q	S	-T	G	E	A	R	G	A	S	G	P	G	A	A	G	Y	H	E	R	T	L	L	D	L	N	K	I	R	D	Y	T	P	O	P	A	L	S	Q	E	G	I	S	E	N	--S	T	D	H		115		
Equus caballus	S	D	T	E	T	Q	S	-T	G	E	A	S	G	A	R	G	P	R	V	A	Q	G	Y	R	O	R	T	L	L	D	L	N	D	E	I	E	H	Y	T	S	O	P	P	L	S	Q	E	D	T	S	E	N	--N	T	D	H		115
Canis_lupus_familiaris	S	E	P	E	T	Q	S																																																			

	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	177
Pavo_muticus	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	177
Pavo_cristatus	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	177
Gallus_gallus	AKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	176
Anas_platyrhynchos	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	177
Chelonia_mydas	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	176
Mus_musculus	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	176
Rattus_norvegicus	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	176
Homo_sapiens	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	175
Pan_troglodytes	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	175
Macaca_mulatta	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	175
Callithrix_jacchus	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	175
Bos_taurus	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	175
Equus_caballus	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	175
Canis_lupus_familiaris	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	175
Felis_catus	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	175
Ornithorhynchus_anatinus	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	170
Xenopus_tropicalis	SKGEYPEDLFSLEERRKGAVILHVGMIYMFIALAIVCDEFFVPSLTVITEKLSISDDVA	178

# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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*****:*****:*****
Pavo_muticus      GATFMAAGGSAPELFTSLIGVFISHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 237
Pavo_cristatus    GATFMAAGGSAPELFTSLIGVFISHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 237
Gallus_gallus     GATFMAAGGSAPELFTSLIGVFISHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 237
Anas_platyrhynchos GATFMAAGGSAPELFTSLIGVFISHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 236
Chelonia_mydas    GATFMAAGGSAPELFTSLIGVFISHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 237
Mus_musculus      GATFMAAGGSAPELFTSLIGVFIAHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 236
Rattus_norvegicus GATFMAAGGSAPELFTSLIGVFIAHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 236
Homo_sapiens      GATFMAAGGSAPELFTSLIGVFIAHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 235
Pan_troglodytes   GATFMAAGGSAPELFTSLIGVFIAHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 235
Macaca_mulatta    GATFMAAGGSAPELFTSLIGVFIAHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 235
Callithrix_jacchus GATFMAAGGSAPELFTSLIGVFIAHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 235
Bos_taurus        GATFMAAGGSAPELFTSLIGVFIAHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 235
Equus_caballus    GATFMAAGGSAPELFTSLIGVFIAHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 235
Canis_lupus_familiaris GATFMAAGGSAPELFTSLIGVFIAHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 235
Felis_catus       GATFMAAGGSAPELFTSLIGVFIAHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 235
Ornithorhynchus_anatinus GATFMAAGGSAPELFTSLIGVFIAHSNVGIGTIVGSAVFNILFVIGMCALFSREILNLTW 230
Xenopus_tropicalis GATFMAAGGSAPELFTSLIGVFISHSNVGIGTIVGSAVFNILFVIGMCALFSKEILNLTW 238
.....190.....200.....210.....220.....230.....240

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*****: *::* ***** * ***** *: **::*:*****. **: :.
Pavo_muticus      WPLFRDVSFYIVDLILLIIFFLDNLIMWWESLTLLTAYFCYVTFMKNVQVEEWVKIILN 297
Pavo_cristatus    WPLFRDVSFYIVDLILLIIFFLDNLIMWWESLTLLTAYFCYVTFMKNVQVEEWVKIILN 297
Gallus_gallus     WPLFRDVSFYIVDLILLIIFFLDNLIMWWESLTLLTAYFCYVTFMKNVQVEEWVKIILN 297
Anas_platyrhynchos WPLFRDVSFYIVDLILLIIFFLDNLIMWWESLTLLTAYFCYVTFMKNVQVEELVKKFLN 296
Chelonia_mydas    WPLFRDVSFYIVDLILLIIFFLDNLIMWWESLTLLTAYFCYVTFMKNVQVEECVKIILN 297
Mus_musculus      WPLFRDVSFYIVDLLMLITFFLDNVMWWESLLLLLTAYFAYVVFMMKNVQVERWVKQMIN 296
Rattus_norvegicus WPLFRDVSFYIVDLIMLIIFFLDNLIMWWESLLLLLTAYFAYVVFMMKNVQVERWVKQMIN 296
Homo_sapiens      WPLFRDVSFYIVDLIMLIIFFLDNLIMWWESLLLLLTAYFCYVVFMMKNVQVEKVVQMIN 295
Pan_troglodytes   WPLFRDVSFYIVDLIMLIIFFLDNLIMWWESLLLLLTAYFCYVVFMMKNVQVEKVVQMIN 295
Macaca_mulatta    WPLFRDVSFYIVDLIMLIIFFLDNLIMWWESLLLLLTAYFCYVVFMMKNVQVEKVVQMIN 295
Callithrix_jacchus WPLFRDVSFYIVDLIMLIIFFLDNLIMWWESLLLLLTAYFFYVVFMMKNVQVEKVVQMIN 295
Bos_taurus        WPLFRDVSFYIIDLIMLIIFFLDNFIMWWESLLLLLTAYFGYVVFMMKNVQVERWVKQMIN 295
Equus_caballus    WPLFRDVSFYIIDLIMLIIFFLDNVIMWWESLLLLLTAYFGYVVFMMKNVQVERWVKQMIN 295
Canis_lupus_familiaris WPLFRDVSFYIVDLIMLIIFFLDNVIMWWESLLLLLTAYFGYVVFMMKNVQVERWVKQMIN 295
Felis_catus       WPLFRDVSFYIVDLIMLIIFFLDNVIMWWESLLLLLTAYFGYVVFMMKNVQVERWVKQMLN 295
Ornithorhynchus_anatinus WPLFRDVSFYIIALIMLIVFFLDNFIMWWESLILLTAYFCYVTFMKNVQVERCVKQLIN 290
Xenopus_tropicalis WPLFRDVSFYIVGLIMLITFFLDNFIIQWVESLLLLLVAYLMYVTFMKYNVQVENFVKRKIN 298
.....250.....260.....270.....280.....290.....300

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Pavo_muticus      RNKVEKATTGDAEGK-----SPTAGDKDDQTLTT----- 326
Pavo_cristatus    RNKVEKATTGDAEGK-----SPTAGDKDDQTLTT----- 326
Gallus_gallus     RNKVEKATTGDAEGK-----SPTAGDKDDQTLTT----- 326
Anas_platyrhynchos RNKVEKVTAGDAEGK-----SPTAGDKDDQTLTT----- 325
Chelonia_mydas    RNKVEKVTADSEQK-----PPNAGDKDDQTLMT----- 326
Mus_musculus      RNNVIKVTVPEAQAK-----SPTAGDKDGPTLPS----- 325
Rattus_norvegicus RNKVVKVTVSEAAQAK-----ASTAGDKKEEPTLPN----- 325
Homo_sapiens      RNKVVKVTAPAEAAQAK-----PSAARDKDEPTLPA----- 324
Pan_troglodytes   RNKVVKVTAPAEAAQAK-----PSAARDKDEPTLPA----- 324
Macaca_mulatta    RNKVVKVTAPAEAAQAK-----PSAARDKDEPTLPA----- 324
Callithrix_jacchus RNKVVKVTAPAEAAQAK-----PSAARDKDEPTLPA----- 324
Bos_taurus        RNKVVKVTAPAEAPK-----SSTARDKDEQTLPV----- 324
Equus_caballus    RNKVVKVTAPAEAAQAK-----SSTARDKKEEQALPA----- 324
Canis_lupus_familiaris RNKVVKVTAPAEAAQAK-----SSTARDKDEQALPA----- 324
Felis_catus       RNKVVKVTAPAEAAQAK-----SSTARDKDEPALPA----- 324
Ornithorhynchus_anatinus RNKVVVEVAASEAEAK-----SSTARDKDEQTLTT----- 319
Xenopus_tropicalis RNKVVKVPSANTDGKDPNIVLESRVPEHEGVAMDIRHGELNETAGLKETWTETATSPG 358
.....310.....320.....330.....340.....350.....360

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# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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*****:***:***:*****:***:
Pavo_muticus      --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGNLKYYDTMTEEGKFKEK 384
Pavo_cristatus    --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGNLKYYDTMTEEGKFKEK 384
Gallus_gallus     --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGNLKYYDTMTEEGKFKEK 384
Anas_platyrhynchos --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGNLKYYDTMTEEGKFKEK 383
Chelonia_mydas    --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGKLKYYDTMTEEGKFKEK 384
Mus_musculus      --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGKLKYYDTMTEEGRFREK 383
Rattus_norvegicus --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGKLKYYDTMTEEGRFREK 383
Homo_sapiens      --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGKLKYYDTMTEEGRFREK 382
Pan_troglodytes   --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGKLKYYDTMTEEGRFREK 382
Macaca_mulatta    --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGKLKYYDTMTEEGRFREK 382
Callithrix_jacchus --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGKLKYYDTMTEEGRFREK 382
Bos_taurus        --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGKLKYYDTMTEEGRFREK 382
Equus_caballus    --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGKLKYYDTMTEEGRFREK 382
Canis_lupus_familiaris --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGKLKYYDTMTEEGRFREK 382
Felis_catus       --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGKLKYYDTMTEEGRFREK 382
Ornithorhynchus_anatinus --KPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLAEELGSYGKLKYYDTMTEEGRFREK 377
Xenopus_tropicalis KTKPRLQGGSSASLHNSLMRNSIFOLMIHTLDPLSEEIGAYGKLKYYDTMTEEGKFREK 418
.....370.....380.....390.....400.....410.....420

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*****:***:***:*****:***:
Pavo_muticus      ASILHKKIAKKKQVEDSERONGAANHEK----- 412
Pavo_cristatus    ASILHKKIAKKKQVEDSERONGAANHEK----- 412
Gallus_gallus     ASILHKKIAKKKQVEDSERONGAANHEK----- 412
Anas_platyrhynchos ASILHKKIAKKKQVEDSERONGAANHEK----- 411
Chelonia_mydas    ASILHKKIAKKKQVEDSERRNGAANHAEK----- 413
Mus_musculus      ASILHKKIAKKKQVDENERONGAANH-----E 411
Rattus_norvegicus ASILHKKIAKKKQVDENERONGAANHVDYAA-----E 415
Homo_sapiens      ASILHKKIAKKKCHVDENERONGAANH-----E 410
Pan_troglodytes   ASILHKKIAKKKCHVDENERONGAANH-----E 410
Macaca_mulatta    ASILHKKIAKKKCHVDENERONGAANH-----E 410
Callithrix_jacchus ASILHKKIAKKKCHVDENERONGAANH-----E 410
Bos_taurus        ASILHKKIAKKKQVDENERONGAANH-----E 410
Equus_caballus    ASILHKKIAKKKQVDENERONGAANH-----E 410
Canis_lupus_familiaris ASILHKKIAKKKQVDENERONGAANH-----E 410
Felis_catus       ASILHKKIAKKKQVDENERONGAANH-----E 410
Ornithorhynchus_anatinus ASILHKKIAKKKQVEENEMONGAANHVDLEILGLGQDSCTSDGSRATSRTRPTINQSINE 437
Xenopus_tropicalis ASILHKMAKKKQVEDSERLNGAASYT-----E 446
.....430.....440.....450.....460.....470.....480

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. . . : * . . . : : ***** : * . . . : : ***** : **
Pavo_muticus      -----GAKVEVAVTPPSD-SGPVQNG-IAHNVDEENEED-----EDQPLSLAWPDT 456
Pavo_cristatus    -----GAKVEVAVTPPSD-SGPVQNG-IAHNVDEENEED-----EDQPLSLAWPDT 456
Gallus_gallus     -----GAKVEVAVTPPSD-SGPVQNG-IAHNVDEENEED-----EDQPLSLAWPDT 456
Anas_platyrhynchos -----GAKVEVAVTPPSD-SGPVQNG-IAHNVEENEED-----EDQPLSLAWPDT 455
Chelonia_mydas    -IELPNTAKVEVEVTPPNDGSGPVQNGNIVHGIEENSEDDDD-----EEQPLSLAWPDT 465
Mus_musculus      KIELPNSTSTEVEMTPSSEASEPVQNGNLSHNIEAADAPKATETAEFEEDDQPLSLSWPTN 471
Rattus_norvegicus KIELPNSTSTEVEMTPSSEASEPVQNGNLSHSIEAADAPQATETAEEDDDQPLSLSWPSN 475
Homo_sapiens      KIELPNSTSTDVEMTPSSDASEPVQNGNLSHNIEGAEAQT----ADEEDQPLSLAWPSE 466
Pan_troglodytes   KIELPNSTSTDVEMTPSSDASEPVQNGNLSHNIEGAEAQT---ADEEDQPLSLAWPSE 466
Macaca_mulatta    KIELPTSNSSTDVEMTPSSDASEPVQNGNLSHNIEGAEAQT--ETADDEEDQPLSLAWPSE 469
Callithrix_jacchus KIELPNSNSTEVEMTPSDASEPVQNGNLSHNIEGAEAQT--ETADDEEDQPLSLAWPSE 469
Bos_taurus        KIELPNSTSTEVEMTPSDASEPVQNGNLSHSIEAAEAQT--ETGEDEEDQPLSLAWPSD 469
Equus_caballus    KIELPNSTSTEVELTPPSDASEPVQNGNLSHSIEAAEVQTT--ETGEDEEDQPLSLTWPSD 469
Canis_lupus_familiaris KIELPNSTSTEVEMTTPSDASEPVQNGNLSHNIEAAEAQT--ETGEDEEDQPLSLAWPSN 469
Felis_catus       KIELPNSTSTEVEMTPTSDASEPVQNGNLSHNIEAAEAQT--ETGE-EEDQPLSLAWPTN 468
Ornithorhynchus_anatinus KIELPNSIDMELEVTPPSESGPVQNGNLSHDIGSAETQTS--DAGEEDDDQPLSLAWPTT 496
Xenopus_tropicalis KVDLPNTANVEFEVTPPKESTGPPVQNGNVSHNTEAGETQIPAAEQTEEDDQPLSLAWPTT 506
.....490.....500.....510.....520.....530.....540

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# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

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***      ::  *:***** :*****:  ::*****:*****:*****:*****
Pavo_muticus      PRKQLTYLLVLPPIVFPLWVSLPDVRNPRSRKFFPITFFGSIWIAFFSYLMVWVAHQVGE  516
Pavo_cristatus    PRKQLTYLLVLPPIVFPLWVSLPDVRNPRSRKFFPITFFGSIWIAFFSYLMVWVAHQVGE  516
Gallus_gallus     PRKQLTYLLVLPPIVFPLWVSLPDVRNPRSRKFFPITFFGSIWIAFFSYLMVWVAHQVGE  516
Anas_platyrhynchos PRKQLTYLVVLPPIVFPLWASLPDVRNPRSRKFFPITFFGSIWIAFFSYLMVWVAHQVGE  515
Chelonia_mydas    LRKQLMYLAVFPPIVFPLWITLPDVRKPSSRKFFPVITFFGAIWIAVFSYLMVWVAHQVGE  525
Mus_musculus      TRKQATFLIVFPPIVFPLWITLPDVRKPASRKFFPITFFGSIWIAVFSYLMVWVAHQVGE  531
Rattus_norvegicus TRKQITFLIVLPPIVFPLWITLPDVRKPASRKFFPITFFGSIWIAVFSYLMVWVAHQVGE  535
Homo_sapiens      TRKQVTFLIVFPPIVFPLWITLPDVRKPSSRKFFPITFFGSIWIAVFSYLMVWVAHQVGE  526
Pan_troglodytes   TRKQVTFLIVLPPIVFPLWITLPDVRKPSSRKFFPITFFGSIWIAVFSYLMVWVAHQVGE  526
Macaca_mulatta    TRKQVTFLIVFPPIVFPLWITLPDVRKPSSRKFFPITFFGSIWIAVFSYLMVWVAHQVGE  529
Callithrix_jacchus TRKQITFLIVLPPIVFPLWITLPDVRKPSSRKFFPITFFGAIWIAVFSYLMVWVAHQVGE  529
Bos_taurus        PRKQVTFLIVLPPIVFPLWITLPDVRKPSSRKFFPITFFGSIWIAVFSYLMVWVAHQVGE  529
Equus_caballus    TRKQVTFLIVFPPIVFPLWITLPDVRKPSSRKFFPITFFGSIWIAVFSYLMVWVAHQVGE  529
Canis_lupus_familiaris PRKQVTFLIVFPPIVFPLWITLPDVRKPSSRKFFPITFFGSIWIAVFSYLMVWVAHQVGE  529
Felis_catus       PRKQVTFLIVLPPIVFPLWITLPDVRKPSSRKFFPITFFGSIWIAVFSYLMVWVAHQVGE  528
Ornithorhynchus_anatinus TRKQITFLIVFPPIVFPLWITLPDVRKTSARKFFPISFFGSIWIAIFS YLMVWVAHQVGE  556
Xenopus_tropicalis IRKQAAVLAVLPPIVFPLWVITLPDVRNPNRSRKFFPVITFFGSIWIAVFSYLMVWVAHQVGE  566
.....550.....560.....570.....580.....590.....600

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****:*****:*****:*****:*****:*****:*****:****:
Pavo_muticus      TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  576
Pavo_cristatus    TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  576
Gallus_gallus     TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  576
Anas_platyrhynchos TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  575
Chelonia_mydas    TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPFWLM  585
Mus_musculus      TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  591
Rattus_norvegicus TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  595
Homo_sapiens      TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  586
Pan_troglodytes   TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  586
Macaca_mulatta    TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  589
Callithrix_jacchus TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  589
Bos_taurus        TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  589
Equus_caballus    TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  589
Canis_lupus_familiaris TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  589
Felis_catus       TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  588
Ornithorhynchus_anatinus TIGISEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPLPWLL  616
Xenopus_tropicalis TIGITEEIMGLTILAAGTSIPDLITSVIVARKGLGDMAVSSSVGSNIFDITVGLPMPWLL  626
.....610.....620.....630.....640.....650.....660

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Pavo_muticus      YAVINNFSPVTVSSNGLFCAIVLLFIMLLFVILSI AFCKWRMNKFLGFLMFGLYFVFLIV  636
Pavo_cristatus    YAVINNFSPVTVSSNGLFCAIVLLFIMLLFVILSI AFCKWRMNKFLGFLMFGLYFVFLIV  636
Gallus_gallus     YAVINNFSPVTVSSNGLFCAIVLLFIMLLFVILSI AFCKWRMNKFLGFLMFGLYFVFLIV  636
Anas_platyrhynchos YAMINSFAPVTVSSNGLFCAIVLLFIMLLFVILSI ALCKWRMNKILGFLMFGLYFVFLIV  635
Chelonia_mydas    YAAINSFAPVTVSSNGLFCAIVLLFIMLLFVILSI ALCKWRMNKLLGFTMFGLYFIFLII  645
Mus_musculus      YTIHHRFSPVTVSSNGLFCAIVLLFIMLLFVILSI ALCKWRMNKILGFIMFGLYFVFLVV  651
Rattus_norvegicus YTIHHRFKPVTVSSNGLFCAIVLLFIMLLFVILSI ALCKWRMNKILGFIMFGLYFVFLVV  655
Homo_sapiens      YTVIHRFQPVAVSSNGLFCAIVLLFIMLLFVILSI ALCKWRMNKILGFIMFGLYFVFLVV  646
Pan_troglodytes   YTVIHRFQPVAVSSNGLFCAIVLLFIMLLFVILSI ALCKWRMNKILGFIMFGLYFVFLVV  646
Macaca_mulatta    YTVIHRFQPVAVSSNGLFCAIVLLFIMLLFVILSI ALCKWRMNKILGFIMFGLYFVFLVV  649
Callithrix_jacchus YTIHHRFQPVAVSSNGLFCAIVLLFIMLLFVILSI ALCKWRMNKILGFIMFGLYFVFLVV  649
Bos_taurus        YTVIHRFQPVAVSSNGLFCAIVLLFIMLLFVILSI ALCKWRMNKVLGFIMFGLYFVFLVV  649
Equus_caballus    YTIHHRFQPVAVSSNGLFCAIVLLFIMLLFVILSI ALCKWRMNKVLGFIMFGLYFVFLVV  649
Canis_lupus_familiaris YTIHHRFQPVAVSSNGLFCAIVLLFIMLLFVILSI ALCKWRMNKVLGFIMFGLYFVFLVV  649
Felis_catus       YTIHHRFQPVAVSSNGLFCAIVLLFIMLLFVILSI ALCKWRMNKVLGFIMFGLYFVFLVV  648
Ornithorhynchus_anatinus FTIINNFKPVAVSSNGLFCAIVLLFIMLLFVILSI IAVCRWRMNKFLGFTMFGLYFIFLVI  676
Xenopus_tropicalis YSVSHNMIPVAVSSNGLFCAIVLLFIMLLFVILSI IAFCKWKMNKILGCTMFGLYFVFLVV  686
.....670.....680.....690.....700.....710.....720

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# CLUSTAL 2.1 MULTIPLE SEQUENCE ALIGNMENT

File: /media/morpheus/disk1/fst/pep\_msa/SLC2A2.fst Tue Feb 1 14:32:30 2022

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*****.::: ** ::
Pavo_muticus      SVLLEDKVIQCPVSI 651
Pavo_cristatus    SVLLEDKVIQCPVSI 651
Gallus_gallus     SVLLEDKVIQCPVSI 651
Anas_platyrhynchos SVLLEDKVIQCPVSI 650
Chelonia_mydas    SVLLEDKVILCPVSI 660
Mus_musculus      SVLLEDKVLVCPVSI 666
Rattus_norvegicus SVLLEDKVLECPVSI 670
Homo_sapiens      SVLLEDRILTCPVSI 661
Pan_troglodytes   SVLLEDRILTCPVSI 661
Macaca_mulatta    SVLLEDRILTCPVSI 664
Callithrix_jacchus SVLLEDRILTCPVSI 664
Bos_taurus        SVLLEDRILVCPVSI 664
Equus_caballus    SVLLEDRILVCPVSI 664
Canis_lupus_familiaris SVLLEDRILVCPVSI 664
Felis_catus       SVLLEDRILVCPVSI 663
Ornithorhynchus_anatinus SVLLEDRIVCPISI 691
Xenopus_tropicalis SVLLEKQIITCPATV 701
.....730.....
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