

FIGURE 1

LNFRAPPVIPNVPFLWAWNAPSEFCLGKFDEPLDMSLFSFIGSPRINATGQGVTIFYVDR 60
LGYYPYIDSIITGVTVNGGIPQKISLQDHLDKAKKDIITFYMPVDNLGMAVIDWEWRPTWA 120
RNWKPKDVYKNRSIELVQQQNVQLSLTEATEKAKQEFKAGKDFLVEITIKLGKLLRPNHL 180
WGYLFPDCYNHHYKKPGYNGSCFNVEIKRNDLDSWLWNNESTALYPSIYLNTOQSPVAAT 240
LYVRNRVREAIRVSKI~~PDAKS~~PLPVFA~~YTRI~~VFTDQVLKFLSQDELVYTFGETVALGASG 300
IVIWGTL~~SIMRSMK~~SCLLLDNYMETILNPYIINVT~~LA~~KMCSQVLCQEQGVCIRKNWNSS 360
DYLHLNPDNFAIQLEKGGKFTVRGKPTLEDLEQFSEKFYCSYSTLSCKEKADV~~KD~~TDAV 420
~~D~~VCIADGVCID~~AFLKPPMETE~~EPQIFYNAS~~P~~STLSATMFIVSILFLIISSVASL 474

FIGURE 2A

```

SEQIDNO_3
chimp_SEQIDNO_10_
LNFRAAPPVIPNVPFLWAWNAPSEFCLGKFDEPLDMSLFSFIGSPRINATGQGVTFIFYVDR 60
LNFRAAPPVIPNVPFLWAWNAPSEFCLGKFDEPLDMSLFSFIGSPRINVTGQDVTFIFYVDR 60
*****
LGYYPYIDSIITGVTVNGGIPQKISLQDHLDDKAKKDI TFYMPVDNLGMAVIDWEEWRPTWA 120
LGYYPYIDSIITGVTVNGGIPQKISLQDHLDDKAKKDI TFYMPVDNLGMAVIDWEEWRPTWA 120
*****
RNWPKPDVYKNRSIELVQQQNVQLSLTEATEKAKQEFKAGKDFLVETIKLGKLLRPNHL 180
RNWPKPDVYKNRSIELVQQQNVQLSLTEATEKAKQEFKAGKDFLVETIKLGKLLRPNHL 180
*****
WGYLFPDCCYNHHYKKPGYNGSCFNVEIKRNDLDSWLWNNESTALYPSIYLNTOQSPVAAT 240
WGYLFPDCCYNHHYKKPGYNGSCFNVEIKRNDLDSWLWNNESTALYPSIYLNTOQSPVAAT 240
*****
LYVRNRVREAIRVSKI PDAKSPLPVFAYTRIVFTDQVLKFLSQDELVYTFGETVALGASG 300
LYVRNRVQEAIRVSKI PDAKSPLPVFAYTRIVFTDQVLKFLSQDELVYTFGETVALGASG 300
*****;*****
IWIWGTLSIMRSMKSCLLLDNYMETILNPYI INVTLA AKMCSQVLCQEQGVCIRKNWNSS 360
IWIWGTLSIMRSMKSCLLLDNYMETILNPYI INVTLA AKMCSQVLCQEQGVCIRKNWNSS 360
*****
DYLHLNPDNFAIQLEKGGKFTVRGKPTLEDLEQFSEKFCYCSTLSCKEKADVKTDAV 420
DYLHLNPDNFAIQLEKGGKFTVRGKPTLEDLEQFSEKFCYCSTLSCKEKADVKTDAV 420
*****
DVCIADGVGCIDAF LKPPMETEEPQIFY----- 447
DVCIADGVGCIDAF LKPPMETEESQIFYNASPTLSATMFIVSILFLIISSVASL 474
*****

```

FIGURE 2B

```

SEQIDNO_3
Rhesus_SEQIDNO_12_
LNFRAPIV PNV PFLWAWNAPSEFC LGKFDPLDMSLFSFIGSPRINATGQGVTFIFYVDR 60
LNFRAPII PNV PFLWAWNAPSEFC LGKFNPLDMSLFTLMGSPRINITGQGVTFIFYVDR 60
*****:*****:*****:*****:***** *****
LGYYPYIDSIITGVTVNGGIPQKISLQDHLDDKAKKDI TFYMPVDNLGMAVIDWEEWRPTWA 120
LGYYPYIDLTTGVTVHG GIPQKVSLQDHLDDKSKQDILFYMPVDNLGMAVIDWEEWRPTWA 120
***** *****:*****:***** *****
RNWPKDVYKNRSIELVQQQNVQLSLTEATEKAKQEF EKAGKDFLVETIKLGKLLRPNHL 180
RNWPKDVYKNRSIELVQQQNVQLSLPQATDKAKQEF EKAGKDFMLETIKLGRSLRPNHL 180
***** *****:*****:***** *****
WGYLFPDCYNHHYKPGYNGSCFNVEIKRNDL SWLNWNESTALYPSIYLNTOQQSPVAAT 240
WGYLFPDCYNHHYKPGYNGSCFDDVEIKRNDL SWLNWNESTALYPSIYLNTOQQSVVAT 240
***** *****:*****:***** *****
LYVRNRVREAIRVSKI PDAKSPLPVFA YTRIVFTDQVLKFLSQDEL VYTFGETVALGASG 300
LYVRNRVREAIRVSKI PDAKNPLPVH VYARLVFTDQVLKFLSREELVSTLGETVALGASG 300
***** *****:*****:***** *****
IVIWGTL SIMRSMKSCILLDN YMETILNPYI INVTLAAKMCSQVLCQEQGV CIRKNWNSS 360
IVIWGSL SITRSMKSCILLD TYMETILNPYI INVTLAAKMCSQVLCQEQGV CIRKDNSS 360
***** *****:*****:***** *****
DYLHLNPDNFAIQLEKGGKFTVRGKPTLEDLEQFSEKFCYCSCYSTLSCKEKADVKTDAV 420
DYLHLNPDNFDIRLEKGGKFTVHGKPTVEDLEEFSEKFCYCSCYTNLSCKEKADVKTDAV 420
***** *****:*****:***** *****
DVCIADGV CIDAFLKPPMETE-EPQIFY----- 447
DVCIADGV CIDA SLKPPVETEGSPPIFYNTSSSTVSTTMFIWRLEVDQGISRIGFF 477
***** *****:***** *****

```

FIGURE 2C

SEQIDNO_3	LNFRAPPVIPNVPFLWAWNAPSEFCGLGFDEPLDMSLSFSGSPRINATGQGVTIFYVDR	60
Cyno_SEQIDNO_14_	LNFRAPPVIPNVPFLWAWNAPSEFCGLGFNEPLDMSLSFTLMGSPRINVTGQGVTFIFYVDR	60
	*****:*****:*****:*****:*****:*****:*****	
SEQIDNO_3	LGYYPYIDSTGTGTVNGGIPQKISLQDHLDKAKKDIIFYMPVDNLGMAVIDWEWRPTWA	120
Cyno_SEQIDNO_14_	LGYYPYIDLTGTGTVHGGIPQKVSLQDHLDKSKQDILFYMPVDNLGMAVIDWEWRPTWA	120
	*****:*****:*****:*****:*****:*****:*****	
SEQIDNO_3	RNWPKDVYKNRSIELVQQQNVQLSLTEATEKAKQEFKAGKDFLVETIKLGKLLRPNHL	180
Cyno_SEQIDNO_14_	RNWPKDVYKNRSIELVQQQNVQLSLPQATDKAKQEFKAGKDFMLETIKGRSLRPNHL	180
	*****:*****:*****:*****:*****:*****:*****	
SEQIDNO_3	WGYLFPDCYNHHYKKPGYNGSCFNVEIKRNDLDSLWNNESTALYPSIYLNNTQQSPVAAT	240
Cyno_SEQIDNO_14_	WGYLFPDCYNHHYKPGYNGSCFEDVEIKRNDLDSLWNNESTALYPSIYLNNTQQSVVAT	240
	*****:*****:*****:*****:*****:*****:*****	
SEQIDNO_3	LYVRNRVREAIRVSKIIPDAKSPLPVFAYTRIVFTDQVLKFLSQDELVYTFGETVALGASG	300
Cyno_SEQIDNO_14_	LYVRNRVREAIRVSKIIPDAKNPLPVFVYARLVFTDQVLKFLSREELVSTLGETVALGASG	300
	*****:*****:*****:*****:*****:*****:*****	
SEQIDNO_3	IVIWGTLSIMRSMKSCLLLDNYMETILNPYIINVTLAAKMCSQVLCQEQGVCIKKNWNSS	360
Cyno_SEQIDNO_14_	IVIWGSLSI TRSMKSCLLLD TYMETILNPYIINVTLAAKMCSQVLCQEQGVCIKKNWNSS	360
	*****:*****:*****:*****:*****:*****:*****	
SEQIDNO_3	DYHLNPDNFAIQLEKGGKFTVRGKPTLEQFSEKFCYCSYSTLSCKEKADVKTDAV	420
Cyno_SEQIDNO_14_	DYHLNPDNFDIRLEKGGKFTVHGKPTVEEDLEEFSEKFCYCSYTNLSCKEKADVKTDAV	420
	*****:*****:*****:*****:*****:*****:*****	
SEQIDNO_3	DVCIADGVCIDAFLKPPMETE-EPQIFY----- 447	
Cyno_SEQIDNO_14_	DVCIADGVCIDASLKPPEVETEGSPPIFYNTSSSTVSTTMFIVNILFLIISVASL 475	
	*****:*****:*****:*****:*****:*****:*****	

FIGURE 2D

SEQIDNO_3	LNFRAPPVIPNVPFLWAWNAPSEFCIG--KFDEPLDMSLFSFIGSPRINATGQGVITIFYVD	59
bovine_SEQIDNO_16_	LDFRAPPLISNTSFLWAWNAPVERCVNRRFQLPPDLRLFSVKGSPQKSATGQFIIILFYAD	60
	*:***** * *: * *: * *: * *: * *: * *: * *: *	
SEQIDNO_3	RLGYYPYIDSIITGVTVNGGIPQKISLQDHLDKAKKDI TFYMPVDNLGMAVIDWEEWRPTW	119
bovine_SEQIDNO_16_	RLGYPHIDEKTGKTGTFGGIPQLGNLKSHMEKAKNDIAYIIPNDVGLAVIDWENWRPTW	120
	*****:*. *	
SEQIDNO_3	ARNWKPKDVYKNRSIELVQQQNVQLSLTEATEKAKQEFKAGKDFLVETIKLGKLLRPNH	179
bovine_SEQIDNO_16_	ARNWKPKDVYRDESVELVLQKNPQLSFPEASKIAKVDFETAGKSFMQETLKLGLLRPNH	180
	*****:*. *	
SEQIDNO_3	LWGYYLFPDCYNHHYKKPGYNGSCFNVEIKRNDLDSLWNNESTALYPSIYLT-QQSPVA	238
bovine_SEQIDNO_16_	LWGYYLFPDCYNHNHNQPTYNGNCPDVEKRRNDDLEWLWKESTALFPSVYLNIIRLKSTQN	240
	*****:*. *	
SEQIDNO_3	ATLYVRNRVREAIRVSKI PDAKSPLPVFA YTRIVFTDQVLKFLSQDELVYTFGETVALGA	298
bovine_SEQIDNO_16_	AALYVRNRVQEAIRLSKIASVESPLPVFVYAREPVFTDGSSTYLSQGLVNSVGEIVSLGA	300
	*:*****:*. *	
SEQIDNO_3	SGIVIWGTLSIMRSMKSCLLLDNYMETILNPYI INVTLAAKMCSQVLCQEQGVCIKKNWN	358
bovine_SEQIDNO_16_	SGIIMWGSNLNLSMQSCMNLGTYLNTTLNPYI INVTLAAKMCSQVLCCHNEGVCIRKHN	360
	*****:*. *	
SEQIDNO_3	SSDYHLNPDNFAIQLEKGGKFTVRGKPTLEDLEQFSEKFYCSCYSTLSCKEKADVKTDD	418
bovine_SEQIDNO_16_	SSDYHLNPMNFAIQTGEGGKYTVPGTVTLEDLQKFSDDTFYCSCYANIHCKKRVDIKNVH	420
	*****:*. *	
SEQIDNO_3	AVDVCIADGVCIDAFLLKP -----	436
bovine_SEQIDNO_16_	SVNVCM AEDICIDSPVKL QPSDHSSSQEASTTTFSSISPSTTTATVSPCTPEKHSPECLK	480
	:*:*:*:*:*:*:*:*:*:*:*:	
SEQIDNO_3	-----PMEETEEPQIFY	447
bovine_SEQIDNO_16_	VRCSEVIPNVTQACQSVKLKNISYQSPIQNIKNQTTY	518
	::*:*:*:	

FIGURE 2E

SEQIDNO_3	LNFRAPPVIPNVPFLWAWNAPSEFCLGKFDPEPLDMSLFSFIGSPRINATGQGVTIFYVDR 60
Mouse_SEQIDNO_20_	VDYRAAPILSNTTFLWIWNVPTERCVCNVNDPIDLSFFSLIGSPRKTATGQPVTLFYVDR 60
	:::***:::*** **:::*** **:::*** **:::*** **:::*** **:::*** **:::***
SEQIDNO_3	LGYPYIDSTITGVTVNGGIPQKISLQDHLDKAKKIDITFYMPVDNLGMAVIDWEEWRPTWA 120
Mouse_SEQIDNO_20_	LGLYPHIDANQAEHY-GGIPQRGDYQAHLRKAKTDIEHYIPDDKLGLAIDWEEWRPTWL 119
	** **:::***: . *****: . * ** ***.*** **:::*** **:::*** *****
SEQIDNO_3	RNWKPKDVYKNRSIELVQQNVQLSLTEATEKAKQEFKAGKDFLVETIKLGKLLRPNHL 180
Mouse_SEQIDNO_20_	RNWKPKDNYRNKSIELVQSTNPGLSITEATQKAIQQFEEAGRKFMEGTLHLGKFLRPNQL 179
	***** *:::*****. * **::*****:*** **::*****:*** **::*****:*
SEQIDNO_3	WGYLFPDCYNHHYKKPGYNGSCFNVEIKRNDLDSLWLWNESTALYPSIYLNTQQ-SPVAA 239
Mouse_SEQIDNO_20_	WGYLFPDCYNNKFQDPKYDGQCBAVEKKRNDNLKWLWKASTGLYPSVYLKKDLKSNRQA 239
	*****:::*** **::*** ** **::*****:*** **::*****:*** **::*
SEQIDNO_3	TLYVRNRVREAIRVSKI PDAKSPLPVFA YTRIVFTDQVLKFLSQDELVYTFGETVALGAS 299
Mouse_SEQIDNO_20_	TLYVRYRVVEAIRVSKVGNASDPVPFIFVYIRLVFTDRITSEYLLLEDDLVTIGEIVALGTS 299
	***** ** *****: ;**::***. * **::*****:.. **::*** **::*** **::***:*
SEQIDNO_3	GIVIWGTLSIMRSMKSCILLDNYMETILNPYIINVTIAAKMCSQVLCQEQGVCIRKNWNS 359
Mouse_SEQIDNO_20_	GIIWDAMSLAQRAAGCPILHKYMQTTLNPYIVNVTLAAKMCSTLCKNEKGMCSRRESS 359
	::*::*: . * **::***: * *****:*****.***::*** **::* **::* .
SEQIDNO_3	SDYLHLNPDNFQAIQLEKGGKFTVRGKPTLEDLEQFSEKFCYCSTLSCKEKADVKTDA 419
Mouse_SEQIDNO_20_	DVYLHLNPSHFDIMLTETGKYEVLGNPRVGDLEFYFSEHFKCFCFRMTCKETSDVKNVQD 419
	. *****::: * * * : **:: * **:: * : *** **::* **::* **::* **::* :
SEQIDNO_3	VDVCIADGVCIDAFKPP-----METEEPQIFY----- 447
Mouse_SEQIDNO_20_	VNVCVGDNVVICAKAVEPNPAFYLLPGKSLLFMTTLGHVLYHLHPQDIFVFPKRTLIVSTP 477
	*::***:..*.****.* ::* : * : **::

FIGURE 2G

```

SEQIDNO_3
Rabbit_SEQIDNO_24_
INFRAPPVIPNVPFLWAWNAPSEFCGLKDFEPLDMSLFSFIGSPRINATGQGVTIFYVDR 60
ANFRAPPVIPNVPFLWAWNAPTEFCGLKSGEPLDMSLFSLFGSPRKNKTGGITIFYVDR 60
*****:*****.*****.*****.*****.*****.*****.*****
LGYPYIDSTTGTVTNNGGIPQKISLQDHLDKAKKDITFYMPVDNLGMAVIDWEEWRPTWA 120
LGYPYIDPHTGAIVHGRIPLGLQQLTKLRQELIYYMPKDNVGLAVIDWEEWLPTWL 120
*****.***.***.***.***.***.***.***.***.***.***.***.***.***
RNWPKDVYKNRSIELVQQNVQLSLTEATEKAKQEFKAGKDFLVETIKLGLLRPNHL 180
RNWPKDIYRIKSIELVKSQHPQYNHSYATEKAKRDFEKAGKDFMEETLKLGRLLRPNHL 180
*****:***.*****.***.***.*****:*****.*****.*****.*****
WGYLFPDCCYNHHYKKP-GYNGSCFNVEIKRNDLWSLWNESTALYPSIYLNTOQ--SP 236
WGYLFPDCCYNHHYDKPNLYKSGCFDIEKKRNDLWSLWKESTALFPSVYLTSRARSATA 240
*****:***.*****.***.*****:*****.*****.*****.*****.
VAATLYVRNRVREAIRVSKIPDAKSPVPFAYTRIVFTDQVLKFLSQDELVYTFGETVAL 296
LSKLYVVRNRVHEAIRVSKIPDDKSPLPNFVYTRIVFTDQIFQFLSHHDLVYTTIGEIVAL 300
:*****:*****.*****.*****.*****.*****.*****.*****
GASGIVIWGTLSIMRSMKSCLLLDNYMETILNPYIINVTLAAKMCQVLCQEQGVCIKRN 356
GASGIVVWGSQSLARSMKSCSLHLDNYMKTILNPYLINVTLAAKMCNQVLCQEQGVCTRKN 360
*****:***.*****.*****.*****.*****.*****.*****.***
WNSDYLHLNPDNFAIQLEKGGKFTVRGKPTLEDLEQFSEKFCYCSYSTLSCKEKADVVD 416
WNPNDYLHLNPGNFAIQLGSNNGTYKVDGKPTLTLDLEQFSKNFQCSYTNLNCERTDMNN 420
**..*****.*****.***.***.*****.*****.*****.***.***:***
TDAVDVCIADGVCIDAFKPPMETEEPQ----- 444
VRFTVNVCVENVCIDTNVGPQAVTYAPKEKKDVAHILSNSTTSINSSTTMSLPFPRKHVSG 480
.:***.***.***.***.***.***.***.***.***.***.***.***.***.***
-----IFY----- 447
CLLVLCMYSQYLNICYRLVAIGIQHGYLK 510
* *

```


[illegible]

FIGURE 2J

SEQIDNO_3
GIBBON_SEQIDNO_857

LNFRAPPVIPNVPFLWAWNAPSEFCLGKFEDEPLDMSLFSFIGSPRINATGQGVTFYVDR 60
LNFRAPPVIPNVPFLWAWNAPSEFCLGKFEDEPLDMSLFSLTGSPRINVTGQGVTFYVDR 60
*****; *****

SEQIDNO_3
GIBBON_SEQIDNO_857

LGYPYIDSTTGVTVNGGIPQKISLQDHLDKAKKDITFYMPVDNLGMAVIDWEEWRPTWA 120
LGYPYIDSTTGVTVNGGIPQKISLQDHLDKAKQDITFYMPVDNLGMAVIDWEEWRPTWA 120
*****; *****

SEQIDNO_3
GIBBON_SEQIDNO_857

RNWKPKDVYKNRSIELVQQQNVQLSLTEATEKAKQEFKAGKDFLVETIKLGKLLRPNHL 180
RNWKPKDVYKNRSIELVQQQNVQLSLAEATEKAKQEFKAGKDFMVETIKLGKLLRPNHL 180
*****; *****

SEQIDNO_3
GIBBON_SEQIDNO_857

WGYLFPDCYNHHYKKPGYNGSCFNVEIKRNDLDSLWNNESTALYPSIYLTQQSPVAAT 240
WGYLFPDCYNHHYKKPGYNGSCFNVEIKRNDLDSLWNNESTALYPSIYLTQQSPVAAT 240

SEQIDNO_3
GIBBON_SEQIDNO_857

LYVRNRVREAIRVSKIPDAKSPLPVFAYTRIVFTDQVLKFLSQDELVYTFGETVALGASG 300
LYVRNRVREAIRVSKIPDAKSPLPVFYARIVFTDQVLKFLSRDELVYTLGETVALGASG 300
*****; *****

SEQIDNO_3
GIBBON_SEQIDNO_857

IVIWGTLSIMRSMKSCLLLDNYMETILNPYIINVTLAAKMCSQVLCQEQGVCIRKNWNSS 360
IVIWGSLSVIRSMKSCLLLDNYMETILNPYIINVTLAAKMCSQVLCQEQGVCIRKDNSS 360
*****; *****

SEQIDNO_3
GIBBON_SEQIDNO_857

DYLHLNPDNFAIQLEKGGKFTVRGKPTLEDLEQFSEKFYCSCYSTLSCKEKADVKTDAV 420
DYLHLNPDNFAIQLEKGGKFTVRGKPTPEDLEQFSEKFYCSCYSTLSCKEKADVKTDAV 420

SEQIDNO_3
GIBBON_SEQIDNO_857

DVCIADGVCIDAFLLKPPMETEEPQIFY----- 447
DVCIADGVCIDAFLLKPPKETEESEQIFYNASPSTLSATMFVLSILFISSVSL 474

FIGURE 2K

SEQIDNO_3
MARMOSSET_SEQIDNO_859

SEQIDNO_3
MARMOSSET_SEQIDNO_859

SEQIDNO_3
MARMOSSET_SEQIDNO_859

SEQIDNO_3
MARMOSSET_SEQIDNO_859

SEQIDNO_3
MARMOSSET_SEQIDNO_859

SEQIDNO_3
MARMOSSET_SEQIDNO_859

SEQIDNO_3
MARMOSSET_SEQIDNO_859

LNFRAPPVIPNVPFLWAWNAPSEFCLGKFFDEPLDMSLFSFIGSPRINATGQGVTFYVDR 60
LNFRAPPPIIPNVPFLWAWNAPSEFCLGKFFDEPLDMSLFSFIGSPRINVTGQGVTFYVDR 60
*****:*****:*****:*****:*****:*****
LGYYPYIDSTTGVTVNGGIPQKISLQDHLDKAKKDIIFYMPVDNLGMAVIDWEWRPTWA 120
LGYYPYIDPTTGAVVNGGIPQKIALQDHLDKVRKDIIFYMPVDNLGMGVIDWEWRPTWA 120
***** **..*****:*****:*** *****:*****
RNWKPKDVYKNRSIELVQQQNVQLSLTEATEKAKQEFKAGKDFLVETIKLGKLLRPNHL 180
RNWKPKDIYKNKSIEMVQQQRNVQLNLTQATDIAKQEFKAAKDFMLETIKLGKALRPNHL 180
*****:*****:*****:***: *****:*****
WGYLFPDCYNHHYKKPGYNGSCFNVEIKRNDLDSLWNESTALYPSIYLNTOQSPVAAT 240
WGYLFPDCYNHHYKKPDYNGSCFNIEIKRNDLDSLWNESTALYPSIYLNTOQSAVAAM 240
*****:*****:*****:*****:*****:*****
LYVRNRVREAIRVSKIIPDAKSPLPVFAYTRJLVFTDQVLKFLSQDELVYTFGETVALGASG 300
LYVRNRVQEAIRVSKTPNANSPLPVFVYARLVFTDQVLRFLSQDELVYTLGETVALGASG 300
*****:***** *:*****:***: *****:*****:*****
IVIWGTLSIMRSMKSCLLLDNYMETILNPYIINVTLAAKMCQVLCQEQGVCIRKNWNSS 360
IVIWGSLSIMRSMKSCLLLDTYMETVNLNPYIINTTLAAKMCQVLCQEQGVCIRKDNSS 360
*****:*****:*****:*****:*****:*****:*****
DYLHLNPDNFAIQLEKGGKFTVRGKPTLEHDLQFSEKFYCSYTLSCKEKADVKTDAV 420
DYLHLNPDNFAIETEKGGKFTVRGKPTYEHDLQFSEKFYCSYTLSCVKADVKTDAV 420
*****:*****:*****:*****:*****:*****
DVCIADGVCIDAFLLKPPMETEEP-QIFY----- 447
DVCIADGVCIDASLPPKETEESSQIFYNPSSSTPSAAIFVAILFFISCVVSL 474
*****:***** ***** *****

LNFRAPVPIPNVPFLWAWNAPSEFCLGKFEPLDMSLFSFGSPRINATQGVTIFYVDR 60
LNFRAPPIPNMPFLWAWNAPSEFCLGKFEPLDMSLFSLGSPRINVTGQAVTIFYVDR 60

LGYYPYIDSIITGVTVNGGIPQKIISLQDHLDKAKKDITFYMPVDNLGMAVIDWEEWRPTWA 120
 LGYYPYIDSIITGVTVNGGIPQKIISLQDHLDKAKKDILFYMPVDNLGMAVIDWEEWRPTWA 120

RNWKPKDVYKNRSIELVQQNVQLSLTEATEKAKQEFKAGKDFLVETIKLGKLLRPNHL 180
 RNWKPKDVYKNRSIELVQQNVQLNLTEATEKAKQEFKAGKDFMWETIKLGKLLRPNHL 180
 *****.*****

WGYLFPDCYNHHYKKPGYNGSCFENVEIKRDDL¹SWLWNE²STALYPSIYLTQQSPVAAT 240
WGYLFPDCYNHHYKKPGYNGSCFENVEIKRDDL¹SWLWNE²STALYPSIYLTQQSPVAAT 240

LYVRNRVREAIRVSKIPIAKSPLPVFAYTRIVFTDQVLKFLSQDELVYTFGETVALGASG 300
LYVRNRVREAIRVSKIPIAKSPLPVFVYARIIVFTDQVLKFLSQDELVYTFGETVALGASG 300

IVIWGTL\$IMR\$MK\$CLLLDNYMETILNPYIINVT\$LA\$KMC\$QVLCQE\$QGV\$CIRK\$NWNSS 360
IVIWGTL\$IMR\$MK\$CLLLDNYMETILNPYIINVT\$LA\$KMC\$QVLCQE\$QGV\$CIRK\$NWNSS 360

DYHLNPDNFAIQLEKGGFTVRGKPTLEDLEQFSEKFCYSCYSTLSCKEKADVKTDAV 420
DYHLNPDNFAIQLEKGGFTVRGKPTLEDLEQFSEKFCYSCYSTLSCKEKADVKTDAV 420

```
DVCADGVCIDAFKPPMETEEPQIFY-----447
DVCADGVCIDAFKPPMETEESQIFYNASPTLSATMFIWRLEVWDQISRMGFF 476
*****
*****
```