


```

1 mtnamkvegypsmewptsldiplkaseelvgidletdlpddptdlktllv 50
36 QEHTQLHIWIALALEYYKQGKTEEFVKLLEAARIDGNLD-YRDHEKDQMT 84
:|:::.....|:::|.|...|||.|:|:|.| | |:::|:.....
51 eensekehwtialaycnhgktnegikliema-----ldvfqnseraslh 95
85 CLDTLAAYYVQOARKEK-NKDNKKDLITQATLLYTMADKI----- 123
...|.| |:::|:..... |:::|:.....|.|. |..|.|
96 tfltwa--hlnlakgqslsvetkeheltqael--nlkdaigfdptwignm 141
124 -----IMYDQNHLLGRACFCLLEGDK-MDQAD-----AQFHFVNLQSP 160
:|.:.|. | |:::| |:|.:.|.|.
142 latvelyyqgrghy-----dkaletsdlfvksihaedhrsgrqsk 180
161 NNIPALLGKACISFNKKDYRGALAYYKALRTNPGCPAEVRLGMGHCFVK 210
.|...||:|:.....|:|:|:.....|..||.....|:|:|.|.|.
181 pncflflllrakllyqkknymaskifqellvinpvlqpdprigiglcfwq 230
211 LNKLEKARLAFSRALELNKSCVGVGLAVLEL-----NNKE-ADSI 251
|.....|:.....|:|:|:|..|.|.|.|.|. |:|. |:.....
231 lkdsksmaikswqralqlnpkntsasilvllgefresftnstndktfkeaf 280
252 KNGVQLLSRAYTIDPSNPMVLNHLNHHFFFKDYSKVQHLALHAFHNTEV 301
.....|:.....|:|:|:|..|.|.|.|.|. |..|:.....
281 tkalsdlnnifsenqhnplltllqtzyyfykgdyqtv---ldiyhhril 326
302 -----EAMQAESCYQLARSFHVQEDYDQAFQYYYQATQFASSSFVLPF 344
:.....|:.....|:.....|:|:| |..|:.....|:..
327 kmspmiakivlsessfwcgrahyalgdyrksf-imfqeslkknednllak 375
345 FGLGQMYIYRGDKENASQCFEVLKAYPNNYETMKILGSLYA----- 386
.|...|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.
376 lglgqtqiknllleesiitfenlyktneslqelnyilgmlyagkafdakt 425
387 -----ASEDQEKRDIAKGHLK---KVTEQYPDDV---EAWIELAQILE-Q 424
|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.
426 akntsakeqsnlnekalkylerylkltlatknqlvisraylvisqlyelq 475
425 TDIQGALSAYGTATRILQEKVQADVPPEILNNVGALHFRLGNLGEAKKYF 474
.....|:.....|:.....|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|
476 nqyktsldylskaleem-efikkeiplevlennlacyhfingdfikaddlf 524
475 LASLDRAKAE-AEHDEHYNAISVTTSYNLARLYEAM-CEFHEAEKLYKN 522
.:|:|:|: |:..| |:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|:|
525 ----kqakakvsvdkde----svnitleyniartnekndce--ksesiysq 564
523 ILREHPNYV-----DCYLRLGAMARDKGNFYEASDWFKEALQINQDHPD- 566
:..|.|. |: |:|: |:|.|.|.|.|.|.|.|.|.|. |:|:|:.....
565 vtshlpayiaarirnlylk---faqskiedsdmstemnkllldlnksdlei 611
567 ----AWSLIGNLHLAKQEWGPGQKKFERILKQPSTQSDTYSMLALGNVWL 612
.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.
612 rsfygwylknskerknekstthnk-etlvkyins--hdayalislanlyv 658
613 QTLHQPTRDR-----EKEKRHQDRALAIYKQVLRNDAKNLYAANGIGAVL 657
.....:|. |.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.|.
659 tiardgkksrnpkeqekskhsylkaiqlyqkvlqvdpfnifaaqglaiif 708
658 AHKGYFREARDVFAQVREATADISDVWLNLAHIYVEQKQYISAVQMYENC 707
|.....|:.....|: |:|.|.|.|.|.|.|.|.|.|. |:|:|:|:|:|:|:|
709 aeskrlgpaleilrkvrdsldnedvqlnlahcylemreygkaienyelv 757
708 LRKFYKHQNTDEVVLYL-----ARAL-----FKCGKLQECKQTL-LKAR 744
|:|:|:|:|:|:|:| |:|: |.....|:.....|:|:|:|:|:|:|
758 lkkfdnektrphilnllgrawyaraikersvnfyqkalenaktaldlfvk 807

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Table with 3 columns: Line number, Amino acid sequence, and Position. Rows include sequences like HVAPSDTV, esskskfihsvkfniallhfqiaetlrrsnpkfrtvqqikdsleglkegl, NAVKEL-ELAHRYFSYLSKVGDKMRFDLALAATEARQCSDLLSQAQYHVA, etc.

hLeol vs yLeol
Identity: 150/717 (20.9%)
Similarity: 243/717 (33.9%)

Table with 3 columns: Line number, Amino acid sequence, and Position. Rows include sequences like MADMEDLFGSDADSEAERKDSDSGSDSDSDQENAASGSNAGSESDQDER, GDSGQPSNKELFGDDSEDEGASHHSGSDNHSERSDNRSEASERSDHEDND, etc.

201	RQQLSEEEKANSDDERPVASDNDDEKQNSDDEEQQLSDEEKMQNSDDER	250
	.: : : : : : : : : : : : : : : : :	
52	----epeedaeldd--lfgddndd-----dvvkseteksdedsde-	89
251	PQASDEEHRHSDDEEQ-DHKSESARGSDSEDEVLRMKRKNAIASDSEAD	299
	. . : : : : : : :	
90	-----ddegeninhrs-----rhreslgld----	109
300	SDTEVPKDNSGMTDLFGGADDISSGSDGEDKPPTPGQPVDENGLPQDQQE	349
	. :	
110	-ddeaeeqamytrkfyg--edannfsdqdettht-----	140
350	EEPIPETRIEVE---IP-KVN---TDLGNDLYFVKLPNFLSVEPRPFDPO	392
	.. : : : : : : : : : : : : : : : : : : : :	
141	---fkeenvelvrhiipskanvnetashneifyaripnfltidpipfdpp	187
393	YYEDEFED-----EEMLDEEGRTLKLVKVENTIRWRIRRDEEGNEIK	434
	.: : : : : : : : : : .. : : : : : : : : : : : : : : :	
188	sfeakvnerasnsasredqldd-----rlidentvrwrysrkdqhvfk	231
435	ESNARIVKWSDGMSLHLGNEVFDVYKAPLQGDHNHLFIRQGTGLQ----	480
	: :	
232	esntqivqwsdgtyslkvgeectdi----lvndtsntfltvshdqgeliq	277
481	---GQAVFKTKLTFRPHSTDSATHRKMTLSLADRCSTQKIRILPMAGR	527
	..: : . . . : .. : : : : : : : : : : : : : : :	
278	cyeggeikkt-lmfiptstnskihqklskavirrnqrqskgpgtyivsm	326
528	PECQRTEMIKKEEERLRASIRRESQQRMRKQHQHQRGLSASY-----	569
	: . :	
327	peve----kkelerkqsqilrdrrrrrqlkekekqespaafetgfrkqn	371
570	-----LEPDRY----DEEEEGEESISLAAIKNRYKGGIREERA	603
	. .: : : : : : : : : : : : : : : : : :	
372	spttygasrrneyeedflvddeeee-----aafddeeddneeee--	412
604	RIYSSDSDEGSEEDKAQRLLKAKK----LTSDEEGEPGSKRKAEDDDKAN	649
	.: : : : : : : : : : : : : : : : . : : : : . : : :	
413	-----eedadeenasrlrnlkregaamyreeeee-----ekdrset	449
650	KKHKYVISDEEEEDDD 666 hLeo1	
	: : : : : : : :	
450	krrrvaviedded 464 yLeo1	

hCdc73 vs yCdc73

Identity: 108/558 (19.4%)
Similarity: 196/558 (35.1%)

1	madvlsvlrqyniqkkeivvkgdevifgefswpknvktnyvvtgtgkegq	50
	: : : : : : : : : : : : : : : : ..	
1	mansldrlreh-----lknkdglv-----lkn-----egq	26
51	preyytldsilflnnvhshpvyvrraatenipvrrprdrkdllgylng	100
	: : : :	
27	-----stddi-----tkatmvetlss	42
101	eastsasidrsapleiglqrstqvkr-----aadevlaeakkpr	139
	: : : : : : : : : : : : : : : : : : : : : : : : : : : :	
43	dgstqdsfplneeteieidgslvqlriivhcvwmnkdsaadyladcqnkq	92
140	iedeecvrllderlaarleghkegqvteqirslseamsvekiaaikaki	189

93	ltnvsf--lqrtldlinwlsngte---ssqylkapgqkgetsdkvdienkt	137
190	makkrstiktdlddditalkqrsfvdavd--vtrdivsrervwrtrtti	237
138	lagelstvksttsaslen-----dsevsdpvvetmkheril-----	174
238	lqstgknfsknifailqsvkareegraperpapnaapvd--ptlrltkqp	285
175	-----vdhnsalrgakp	186
286	ipaaynrydqrerfkgkeetegfki--dtmgtyhgmtlksvtegasarktq	333
187	infgylikdae-----lklvqsikgslrgsklppghkgahgrisk	226
334	tpaaqvpvrpvsqarpppnqkksrtpiiipaattslitmlnakdllqd	383
227	tngssggpr-----kdpilipsaassiltvanikqfille	261
384	lkfvpsdekkkqgcqrenetliqrkdqmqpggtaisvtvpyrvvdqplk	433
262	skyv-----nprnlpsvpng-lvnieknferisrpir	292
434	lm-----pqdwdrvvavfvqgpawqfkgwpllpdgspvdifaki	473
293	fiivdntrmftkpeywdrvvaifttghtwqfnnyqw---nspqelfqrc	338
474	kafhkydevrldpvnvqkwdvtvlelsyhkrhldrpfvflrfwetldrymv	523
339	kgyyfhhfagdsvpqhvhvqqwnvekveldknkrfkdevvryfwhslekeli	388
524	khkshlrf 531	hCdc73
389	srgyr 393	yCdc73

hSki8 vs ySki8

Identity: 88/414 (21.3%)
 Similarity: 150/414 (36.2%)

1	MTNQYGILFKQEQAHDDAIWSVAWGNTNKKENSETVVTGSLDDLKVKWKWR	50
1	mskvfiatanagkahdadifsvs-----acnsft-vscsgdgylkvw---	41
51	DERL-----DLQWSLEGHQLGVVSVDI-----SHTLPPIAASSSLDA	86
42	dnkllldnenpkdksyshfvhksghhvdvlqaierdafelclvattsfsg	91
87	HIRLWLDLENGKQIKSIDAGPVDA-----WTLAFSPDSQYL-----	121
92	dllfyritredetkkvifekldlldsdmkkhsfwalkwgasndrllshrl	141
122	-ATG----THVGKVNIFGVES-----GKKEYSLDTRGKFIL	152
142	vatdvkgttyiwkfhpafadesnsltlnwsptlelqgtvespm-tpsqqfat	190
153	SIAYSPDGKYLASGAIDGIINIFDIATGKLLHTLEG-HAM-----PIRSL	196
191	svdiserg-liatgfnngtvqiselstlrplynfesqhsminnsnsirsv	239
197	TFSPDSQLLVTASDD---GYIKIYDVQHANLAGTLS-----G	230
240	kfspqgsllaiahdsnsfgcitlyetefgerigslsvpthssqaslgefa	289

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231 HASWVLNVAFCPDDTHFVSSSSDKSVKVWDVGTRTCVHTFFDHQDQVW--      278
    |:|::|::|.....|::|..:|::|::|::|::|::|..|..|:..
290 hsswvmslsfndsgetlcsagwdgklrfwdvktkerittlnmhcddieie      339

279 --GVKYNGNGSKIVSVGDDQEIHIYDCPI                               305
    ..:..:|.....|      :|...
340 edilavdehgdslaepg-----vfdvkflkkgwrsngmgadlneslccvc      383

306                                                            hSki8

384 ldrsirwfreaaggk      397                                       ySki8

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hSki3 vs ySki3

Identity: 322/1849 (17.4%)
Similarity: 567/1849 (30.7%)

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 1 MSSKEVKTALKSARDAIRNKEYKEALKHCKTVLKQEKNYNNAWVFIGVAA      50
   :::|...|::|:::|:|:|:::|:::|:::|:::|:::|:::|:::|:
 1  msdikqllkeakqeltnrbyeetieisekvklkdpdnyfahiflglkal      48

51 AEL-----EQPDQAQSAYKKAEELEPDQLLAWQGLANL-----      83
   :|           :::|:::|...|::|:|::|:|::|:|::|
49 sslpasnnvssnrnleratnhyvsaa klvdpnllawkgflflfrttevvp      98

84 ----YEKYNHINAKDDLPGVYQKLLDLYESVDKQKWCDV-----CK      120
   |:|:|       .||..|...|...|.....:..|:          |:
99 dilSydey-----fdlCgqYadallkqeqsqvelindikllkkthpdcq      142

121 KLVDLYYQEKK-----HL-----EVARTW                       139
   |  :|::|..|           ||           |:|::|
143 k---afyqhlkpgsmaetigrhlstpqdallnlikilsnietteigkt-      188

140 HKLIKTRQEQA-----ENEELHQLWRKLTQFLAESTE                172
   |::|:|:::|           :|::|:|:::|:|...|:::|
189 --lsqnrklklkasdpdyqiklnsfswEiiknSEidqlynqlvniladdqk      236

173 DQNNETQQLLFTA-----FENALGLSDKIPSEDHQVL---Y           205
   ....|...|:..:           |.....:~:~:~:|::|  .
237 rseienqWleyriKvlksmpLdvkdfFtkvkemvEdmVlvnhqsllawq      286

206 RHF-----IQSLSKFPHESARLKKACEGMINIYPTVQYP             239
   ::|           |:::|::|:..:           .|| :|:~:~:~
287 kyfewtdyedldnmDapliikyfkKfPkDpl-----ami-lyswlssk      328

240 LEVLCLEHLIESGNLTDEGQQYCCRLVEMDSKSGPGLIGLIGIKALQDKKYE  289
   |.....:~:~:~:|::|...|:::~:~:~:  |...|           .|::|
329 lskydikSlesankppegHkKtek--etdikd-----vdetne          364

290 DAVRNLTE-----GLKESPVCTSG                             308
   |:|:~:~:~:|           ||..|...|..|
365 devkdrvedevkdrvedevkdqdeeakEdeedlddieigllEeevvtv-    413

309 WYHLAEAQVK-----MHRPKEAVLSC-----SQALKIVDNLGASG      343
   |...|:|  .||  :|           ..|:::~:~:~:|  |
414 ---ltenivkcknnilahr-----ilcqYlltKeyeaalPyikn---g      451

344 NSLYQRN---LCLHL---KAEALIKLSD---YDSSEE---AIRTLAQI-    379
   .|:::~:~:~:|  |:|  |...|:|~:~:~:  .|:~:~:~:  |:~:~:~:~:~:~:|
452 isliaynikdlgvhlpltkrefslDlatvytyvdapkdhnaalklydnil    501

```

380 -SDADNIPGLLVKSLAYRNKGSFDEAAKIMEDLLSSYPD----LAEVHA 424
. | . . | | : | : : : | : | : | : . .
502 sgdfsniaqakmg-kgiifierknwkdamtlltqvheqspnnlevlselstw 550
425 LEALIHFTKKDYLAQAEKCFQRALEKDTEVAEYHYQLGLTYWFMG----- 468
. : | : : : | : . | . . |
551 skahmgymdealagldtvikgikgmdlrsidfr---alnlnwrqakvyimk 597
469 -----EETRDKTKALTHFLKAARLDTY-----MGKVFCYLGHYR 504
: | . . | . . | : | . | : | : | : | : | : | | : | | : |
598 hasindakqenvkcafklisqisiki--ldtfapgfstlqdiyc---hyyk 642
505 DVVGDKNRARGCYRKAFELDDTDAESGAAAVDLSVELEDMEMALAILTTV 554
| . : | | . . | | . | | : | | . | | : : : | . : | : : :
643 dh1----rafkcyfkafdldagdytaakyitetyaskpnwqaassiasrl 688
555 TQ---KASAGTAKWAWLRRGLYLLKAGQHSQAVADLQALRADPKDFNC 600
. : | | | : : : : | : : | | | . | | . | . . .
689 ikgekakaelrsnnpfrvvgiahlekqeesdsiewfqsalarvdpndves 738
601 WESLGEAYLSRGGYTTALKSFTKASELNPEIYS-VFKVAAIQQLGKYK 649
| . . | : | | . : | : | . | | . : | : . | | . . : : : | : | .
739 wvglgqayhacgrieasikvfdkaiqlrpshtfaqyfkaislcdiv-geyl 787
650 EAVAQYQMI IKKKEDYVPALKGLGECHLMMAKALVDYLDG---KAVDYI 696
| : : : : | | . | : : : : | . . | . | : | | . .
788 esldilekvcqaateesfqiglve---vlmrclsldlysqgflksvsia 834
697 EKALEYFTCALQHRADVSC----LWKLADACTCLYAVAPSKVNVHVLGV 742
: : : | : : : | : | | : . . | | | :
835 kdtierikiii---selkcnqvwiyalsqvlr-lfiwieskvdtpves 880
743 LLGQKEGKQVLKKNEL-----LHLGGRCY 766
| : . . | . . | : | : | | . |
881 lvsifensqfsgseeidsvdnikidtlldsttddnvsiackflilaskys 930
767 GRALKLMSTSNT----WCDLGINYYRQAQHLAETGSNMNDLKEKLEKSL 811
. . . . | : | | . . : | | : | | : :
931 vsdqkftdiagtvrasynigiseltafitlke-----pqyrdaai 972
812 HCLKKAVRLDSNNHLYWNALGVVACYSIGINYALAQHCFIKSIQSEQINA 861
. . . | | : : : | . | | | . | | : | : : : | | | | | | : . . . | . . .
973 fafkksiqqlqsntsetwiglgiatmdi--nfrvsqhcifikatalepkat 1019
862 VAWTNLGVLYLTNENIEQAHEAFKMAQSLDPSYLMCWIGQALIAEAVGS- 910
. . | . | | . : | : | . | . : | | | : | . | | | . | . | .
1020 ntwnflamlglkkkdtetaqqvlknklqslapqdsspwlqmalileeggdi 1069
911 YDTMDLFRHTTELNMHTEGALGYAYWVCTTLQDKSNRETELYQYNILQMN 960
. . . . | | . | : : : | : | . . : | | : : . . | : . . : : : |
1070 igssklfahsfilnngsrskaaqfmy-aknvlennhngdd--erdietve 1116
961 AIPAAQVILNKY-----VERIQNYAPAFTMLGYLNEHL 993
. . . . | . . : : : | : : : | | : : : | . . | | . . |
1117 klttasialeqffkkspsdqlalqcalltlerlhhyenanelanrligil 1166
994 QLKKEAANAYQRAILLLQTAEDQDTYNVAI--RNYGRLLCSTGEYDKAIQ 1041
: . | . | : | : : : : : | . | | . . . | : | . : : : : : |
1167 ekkfe-----ktqderelfnfaiikgqfarihlglgnfelsie 1204
1042 AF-----KSTPLEVLEDIIGFALALFMKGLYKESKAYERAL 1078
. . | | . . : | . . | : . | : : |
1205 nadlsqgiisessdeksmktkisnhic-lglisyfflndfdqtlngfqell 1253


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1079 SIVESEQDKAHILTALAITAYKQKTDVAKTLLFKCSILKEPTTESLQAL 1128
    || .:|..|:.....|...|..|::|.....|.: :.....|.....|
1254 si---skdskhlvliakvlydvgesdtkeialqe--lteyiatsgadll 1298

1129 CALGLA----MQDATLSKAALNELLKHI-----KHKDSNYQRCLLTS 1166
    ..|.:| :|......:..|.|.: |::|:|.....|.
1299 vltiaamsilddkredlsiileelkalplskqiidkxkdapylieeitk 1348

1167 AIYALQGRSVAVQKQISKAVHSNPGDPALWSLLSRVVAQYAQRNAKGGVV 1216
    .:| |:.....:.....:.....|:.....|..|:.....:.....|:.....|.
1349 rly----rndtgkqvqrsayffpnnlkvwerldkniqrriasngqkvt 1394

1217 AGNVAHILDSNHGKKALLYTAVNQLAMGSSSAEDEKNTALKTIQKAALLS 1266
    |..... |. :.|| |::||:.....|.
1395 aeemsk-----lyc-----eskn--lrsiqrgmflc 1418

1267 PGD-PAIWAGLMAACHADDKLALVNNTQPKRIDLYLALLSAVSASIKDEK 1315
    |.: .|:|. :..|.
1419 pwnvtavka--lnecf 1432

1316 FFENYNQSLEKWSLSQAVTGLIDTGRISEAETLCTKNLKSNDQPAVILL 1365
1433

1366 LRQVQCKPPLLESQKPLPDAVLEELQKTVMSNSTSVPQWLAHVYQSQGM 1415
1433

1416 MRAAEMCYRKSLQLASQRGSWSGKLSLLRLALLALKVCMANISNDHWPS 1465
1433

1466 LVQEATTEALKLFCPLAVLLQALLQFKRKMARETRRLLERVVYQPGYP 1515
1433

1516 KSIASTARWYLLRHLYAKDDYELIDVLVNNAKTHGDTRALELNQRLSSQ 1564 hSki3
1433 ySki3

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hSki2 vs ySki2

Identity: 489/1431 (34.2%)
 Similarity: 707/1431 (49.4%)

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1 mmeterlrvlpppdpldlpravelgctghwellnlpgapesslphglppc 50
    :..|....
1 msegfsss 8

51 a-pdlqqaeeqlflsspawl-----plhgvehsarkwqrk 84
: .:|..|:.....:.....| |.|.....:..|.
9 siqelyqslkeitnadvelfedritkldfestdepkhandiikdrflrp 58

85 td--pwsll-----avlgapvp---sdlqaqrh 107
:: |||| |:.....| :..|:|.
59 snalpwslldmvqvphtsspedcsgkldykellkvpdpinrtsyqfkr 108

108 pttgqilgykev--llentnlsattslslrrppgpasqslwgnptrypfw 155
...|:|.||||. |.|..|:|:||||:|.....|:|:.....|.
109 glegkisgykeevdlkevananasnlsitrsinhnqnsvrgstaqlpft 158

156 pggmdepti-td-----lntreeaeeeeidfekd---lltippgfkkgm 196

```

```

159  |||:.....: ||      .:|...|.:.: .||  |..||. |.:|
      pggipmksvkt dseqngsstmanatkll--hkdggqlfdipegmrg--- 203

197  apkdcptpapgllslscillepldlgggeden-----eavgqpggprgd 240
      :||:|...:|:|      :.:.:.....
204  -----ikpmdspaenedqngqfkelkqlneidneldi 235

241  tvsaspcsaplar----assledlvlkeastavst----- 271
      .:|: |..|.. |.:.:.:.:|:|:.....
236  riean--eaklkeeeeksaksiseeimeeateettadnaddaeidellpig 283

272  -----peapeppsqqewaipvdatspvgdfyrlipqpafqwafepdvf 314
      |:....|.:.:|..||.....:|..|||.||..|..|..|..|
284  idfgrtkpvsksvpvkewahvvdlnhkienfdelipnparswpfeldtf 333

315  qkqailhlerhdsvfvaahsagktvvaeyaialaqkhtmtrtiytspika 364
      ||:|:..||:..|..|..|..|..|..|..|..|..|..|..|..|..|
334  qkeavyhleggdsvfvaahsagktvvaeyaiamahrnmtktiytspika 383

365  lsnqkfrdftrntfgdv--glltgdvqlhpeasclimtteilrsmlysgsd 412
      |..|..|..|..|..|..|..|..|..|..|..|..|..|..|..|..|
384  lsnqkfrdfketfddvnigltdvqinpdanclimtteilrsmlyrgad 433

413  virdlewvifdevhyindvergvvweevlimlpdhvsiillsatvpnale 462
      :||:|:|..|..|..|..|..|..|..|..|..|..|..|..|..|..|
434  lirdvefvifdevhyvndqdrgvvweeviimlpqhvkfillsatvpnty 483

463  fadwigrkrrqiyvistvtrpvplehyft----- 493
      ||:|..|..|:..|..|..|..|..|..|..|..|..|..|..|..|
484  fanwigrtkqkniyvistpkrpvpleiniwakkelpvinqnsefleanf 533

494  -----gnssktqgelfllldsrgefhtkgyyaaveakkerms 530
      |..|||.      :||.....|.....:..|..
534  rkhkeilngesakgapsktd-----nrgggstarggrggsntrdgrgg 576

531  khaqtfgakqpthqggp-----aqd---rgvylsllaslrt 563
      :...|.|. .:|..|..      .||  :.:.:.:..|..
577  rgnstrgg---anrggsrgagaigsnkrkfftqdgpskktwpeivnylrk 623

564  raqlpvvftfsrgrcdeqasgltsldltssekseihlflqrclarlrg 613
      |..||:|..|..|..|..|..|..|..|..|..|..|..|..|..|..|
624  rellpmvfvfvskkrcceeyadwleginfcnneksqihmfieksitrkk 673

614  sdrqlpqvlqmsellnrglgvhhsgilpilkeivemlfsrglvkvlfate 663
      .||.|||:|:..|..|..|..|..|..|..|..|..|..|..|..|..|
674  edrdlpqilktrsllergiavhhgllpivkelieilfskgfikvlfate 723

664  tfamgvnmpartvvfdsmrkhgdgstfrdllpgeyvqmagragrrglcptg 713
      |..|..|:|:..|..|..|..|..|..|..|..|..|..|..|..|..|
724  tfamglnlprtrtvifssirkhdnglreltpgeftqmagragrrgldestg 773

714  tvillckgrvpemadlhrmmmgkpsqlqsqfrltytmilnllrvdalrve 763
      |||:~.....:|.....:|..|:~|..|..|..|..|..|..|..|..|
774  tvivmaynspisiatfkevtmgvptrlqsqfrltytmilnllriealrve 823

764  dmmkrsfsefpsrkdskaheqalaeltkrlgaleepdmtgqlvdlpeyys 813
      :|:|..|..|..|..|..|..|..|..|..|..|..|..|..|..|..|
824  emikysfsenaketlqpehekqikvlqeelqtieyksceicdndiekfle 873

814  wgeeltetqhmiqurrimesvnglkslsagrsvvvvknqehhnalgvilqvs 863
      .....|.....:~:~:~|..|..|..|..|..|..|..|..|..|..|
874  lmlaykeatvnlmqemvkspsilhilkegrlvafrdpndclklgfvfkvs 923

864  snstsrvtftlavlcdkplsdpqdrgpataevpypddlvfgklflpegpc 913
      .....|..|..      .||.      ||..|..

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