

Dtig_m.24616
Hsap_NP_690601.1
Sman_Smp_010690
Emul_000305600.1..pep

```
1      10      20      30      40      50
..LLEVFNRGVKVELQKFTAAKAGNKIEKIKQCLADFDGAIYKINNEK.DKNIYLSITC
MILLEVNNRIIEETLALKFENAAAGNKPEAVEVTFADFDGVLVHISNPNNGDKTKVMVSTIS
MILFHEVCNRAVEEILVTRFEQAKEESRYDKIDYTVADFDISIVYTISSNPNNDKTKILVSTIF
MIFLEFHNSAVEDDLTRFESNAKAGKFKPEKIDYTVADFDRLVLRHINPEBGDKSKLLVSLL
```

Dtig_m.24616
Hsap_NP_690601.1
Sman_Smp_010690
Emul_000305600.1..pep

```
60      70      80      90      100     110
LKFFKQLQEQYDADKVLKREYGDRLCSPPPEPCNVTIQFDLTKLFDIIEELAHNAALLKRN
LKFFKQLQEQYDADKVLKREYGDRLCSPPPEPCNVTIQFDLTKLFDIIEELAHNAALLKRN
LKFFKQLQEQYDADKVLKREYGDRLCSPPPEPCNVTIQFDLTKLFDIIEELAHNAALLKRN
VNFDELKQEQYDADKVLKREYGDRLCSPPPEPCNVTIQFDLTKLFDIIEELAHNAALLKRN
```

Dtig_m.24616
Hsap_NP_690601.1
Sman_Smp_010690
Emul_000305600.1..pep

```
120     130     140     150     160     170
CFASVFEVTFEDYQESGNIAK...QTINVRDDETMVYKAMEDRVTVIFSTVFKDSDDIIL
CFASVFEVTFEDYQESGNIAK...QTINVRDDETMVYKAMEDRVTVIFSTVFKDSDDIIL
CFASVFEVTFEDYQESGNIAK...QTINVRDDETMVYKAMEDRVTVIFSTVFKDSDDIIL
CFASVFEVTFEDYQESGNIAK...QTINVRDDETMVYKAMEDRVTVIFSTVFKDSDDIIL
```

Dtig_m.24616
Hsap_NP_690601.1
Sman_Smp_010690
Emul_000305600.1..pep

```
180     190     200     210     220     230
GKVFIOELTEARRRVDRAPOVLVSPKEPPELKGTKAAVGENVYITFVLFNRHFATPAA
GKVFIOELTEARRRVDRAPOVLVSPKEPPELKGTKAAVGENVYITFVLFNRHFATPAA
GKVFIOELTEARRRVDRAPOVLVSPKEPPELKGTKAAVGENVYITFVLFNRHFATPAA
GKVFIOELTEARRRVDRAPOVLVSPKEPPELKGTKAAVGENVYITFVLFNRHFATPAA
```

Dtig_m.24616
Hsap_NP_690601.1
Sman_Smp_010690
Emul_000305600.1..pep

```
240     250     260     270     280
RKNSIDLIHTFRNVLHYHIKCSKAHIMRMRAKSGNFKLLKRAKP.....EI
RDNTINLIHTFRNVLHYHIKCSKAYIHTMRRAKSDFLKVLNRARP.....DA
RNSTIDLIHTFRNVLHYHIKCSKAYMQRMRRAKVEFLKVLNRAR.....I
DRSINLIHTFRNVLHYHIKCAKGYLQLRMRRAKSEFLKVLNRARVHQOQQOQQQLNDG
```

Dtig_m.24616
Hsap_NP_690601.1
Sman_Smp_010690
Emul_000305600.1..pep

```
290     300     310     320
SASGSGCEAVDFRGVTD.....LGIEGLNLGSGDSLSQKKTFTGRVFLPQS.....
EKK.....EMKTITGKTFPSR.....
EHSNTNVTNITTVSSEVAPISPLMNKIGGIQSDN.....MGRIMRTG.....
EESAEPAVFVHALGLSSRSQIHRQPANRRGLASGNAFSSENMLMPSLSQSDFAQLKQF
```

Dtig_m.24616
Hsap_NP_690601.1
Sman_Smp_010690
Emul_000305600.1..pep

```
.....
.....
.....
EDSEDEREEEDGVLSSAPLMANSIPSPCFDA
```

1 10 20 30 40 50
 Sman_Smp_069770 ...MALRTFGSVSLKLLCRSDGSLPRNF...GRQSSHLFVHRERTRNNNSNTPFEFSA
 Dtig_m.6038 ...MFRNF...YQNIYRG.IOLKR...RCLSDKLFTHRDTPDNNANTLFEFNS
 Emul_001114700 ..MGLNIANQCFWSLRMLLSASKVSLNLTLPKAFRSFSTALFWHRDTAINNRDVLFEFIP
 Hsap_NP_066552.2 MFFSAALRAARAAGLTAHWGRHVRNLHKTVMQ...NGAGGALFVHRDTPENNPDTFDFIP

60 70 80 90 100 110
 Sman_Smp_069770 ENKRRLDVITISNYPPAHKAAAIIPALDLAQRQHGWLPIISAMNKVAEILNVPQMRVVEVAT
 Dtig_m.6038 ENLKRRETIKSNYPDGHQNAALIPVLDLAQRQHGWLPIISAMNKVAEILNMPMRVVEVAT
 Emul_001114700 ENLRRLEELKTHYPVGYHASLIMPALDLAQRQNGWLPIISAMSKIAEYLVGPEMRVVEVAT
 Hsap_NP_066552.2 ENYKRLEAIVKNYPEGHKAAAVLPVLDLAQRQNGWLPIISAMNKVAEVLQVPMRVVVEVAT

120 130 140 150 160 170
 Sman_Smp_069770 FYTMFNREPVGKYHIQVCTTTPCMLGGVGSSEVILNALKKNLGIEPQGTTPDKMFTLSEVE
 Dtig_m.6038 FYTMFNRPVGRYHVQVCTCSPCILGGVGSDDIILETIKKHLGIEPGETTSDKFLTSEVE
 Emul_001114700 FYTMFNRPVGRYHVQVCTTTPCMLGGVGSDDVILETIEKTLGIEPGETTDDKFLTISOVE
 Hsap_NP_066552.2 FYTMVNRKPVGKYHIQVCTTTPCMLR..NSDSILEAIQRKLGIEPGETTDDKFLTIEVE

180 190 200 210 220 230
 Sman_Smp_069770 CLGACVNAPMMQINDDYEDLTAEDTIRIIEIKAGKKPKPGPQSGGGRFASFPKGGELT
 Dtig_m.6038 CLGACVNAPMMAVNDYEDLTVDDTVRIINDFKANRRPKPGPQSGGGRFACFPKGGELT
 Emul_001114700 CLGACVNAPMMQINDDYEDLTPDDVVRILSDLKAGKKPKPGPQSGGGRHACAFKGGFT
 Hsap_NP_066552.2 CLGACVNAPMVQINDNYEDLTAKDIEEILDELKAGKIIPKPGPRSG...RFSCFPAGGLT

240
 Sman_Smp_069770 SLNTEPKSPGPKVRSDT.....
 Dtig_m.6038 SLTEEPKSPGPKVRSDT.....
 Emul_001114700 SLNTPVPVPDFKLQDAIKYTVDI
 Hsap_NP_066552.2 SLTEEPKSPGPGVQAGL.....

1 10 20 30 40 50
Emul_000422600 .MEKPPNCFQSCTFMAFLVVRASFAFAARLG...CLPTFAGASRHVSTVSKDVTIIDH
Sman_Smp_061230NVHLLSLNLAIRKATKLNLYLTN.....IYQSFK...CRNLSYTSYVTVIIDH
Dtig_m.2I611MSRLLCNLKRIVYEFSGKVGISR.....FPTRR...LSSQIISKVTVIVDH
Hsap_NP_004159.2 MSGVVRGLSRLLSARRLALAKAWPTVLQGTGRGFHFTVDGNKRASAKVSDSISAQVFPVVDH

60 70 80 90 100 110
Emul_000422600 TYDAVVVGAGGAGLRAAFGLANEGFKTACVTKLFPTRSHTVAAOGGINAALGNMEODHNK
Sman_Smp_061230 SEDAVVVGAGGAGLRAAFGLANEGFKTAITKLPTRSHTVAAOGGINAALGNMEPDDWR
Dtig_m.2I611 TYDAVVVGAGGAGLRAAFGLANSGFKTACITKLPTRSHTVAAOGGINAALGNMEKDDWR
Hsap_NP_004159.2 ERDAVVVGAGGAGLRAAFGLSEAGFNACVTKLFPTRSHTVAAOGGINAALGNMEEDNWR

120 130 140 150 160 170
Emul_000422600 FEMFDIVKGSDWLGDQDAIHYMCEBAPKAVTELENYGMPFSRLENGKIYQRAFGGQSLHY
Sman_Smp_061230 FEMFDIVKGSDWLGDQDAIHYMCEBAPKAVTELENYGVPFSRLENGKIYQRAFGGQSIDY
Dtig_m.2I611 YEMFDIVKGSDWLGDQDAIHYMCEBAPKAVTELENYGMPFSRLDNGMIYQRAFGGQAIY
Hsap_NP_004159.2 WEFDIVKGSDWLGDQDAIHYMTEQAPAAVTELENYGMPFSRTEDEKIIYQRAFGGQSLKRF

180 190 200 210 220 230
Emul_000422600 GRGGQARRCCAVADRTGHSLLHTLYGRSLRYETDVFIEYFALDMLMENGVCRGINAMCCE
Sman_Smp_061230 GRGGQARRCCAVADRTGHSLLHTLYGRSLRYDATVFIEYFVLDMLMENGVCRGVIAVCCLE
Dtig_m.2I611 GRGGQARRCCAVADRTGHSLLHTLYGRSLRYDVFIEYFAMDLMHGCRCGVIALNCE
Hsap_NP_004159.2 GRGGQARRCCAVADRTGHSLLHTLYGRSLRYDTSYFVEYFALDMLMENGVCRGVIALCCE

240 250 260 270 280 290
Emul_000422600 DCTIHRERAKNTILATGGYGRAYFSC TSAHTCTGDGTAMVTRAGLPNEDEMFVQPHPTGI
Sman_Smp_061230 DCTLHRERAKNTVILATGGYGRITYFSC TSAHTCTGDGTAMVTRAGLPNODMEFVQPHPTGI
Dtig_m.2I611 DCTLHRERAKNTVILATGGYGRITFFSCTSAHTCTGDGTAMISRAGLPNEDEMFVQPHPTGI
Hsap_NP_004159.2 DCSIHRERAKNTVVILATGGYGRITYFSC TSAHTSCTGDGTAMITRAGLPCODEFVQPHPTGI

300 310 320 330 340 350
Emul_000422600 YGAGCLITEGCRGEGGV LINS EGERFMERYAPNAKDLASRDVVSRAMTIEIREGRGVGR
Sman_Smp_061230 YGAGCLITEGCRGEGGV LINS KGERFMERYAPNAKDLASRDVVSRAMTIEIREGRGVGR
Dtig_m.2I611 YGAGCLITEGCRGEGGV LINS EGERFMERYAPNAKDLASRDVVSRAMTIEIREGRGVGR
Hsap_NP_004159.2 YGAGCLITEGCRGEGGV LINS QGERFMERYAPNAKDLASRDVVSRAMTIEIREGRGVGR

360 370 380 390 400 410
Emul_000422600 KDHICYLKLHHLFPD LKSR LPGAIS E TAFAGVDVTKEPV PVLPTVHYNMGGV PPNYKGG
Sman_Smp_061230 KDHIFLQLSHLPADQLHSR LPGAIS E TAFAGVDVTRDP PVLPTVHYNMGGI PPNYKGG
Dtig_m.2I611 KDHIFLQLSHLPBELKHLR LPGAIS E TAFAGVDVTRDP PVLPTVHYNMGGI PPNYKGG
Hsap_NP_004159.2 KDHVYLQLHHLPEQLATRLPGAIS E TAFAGVDVTKEPV PVLPTVHYNMGGI PPNYKGG

420 430 440 450 460 470
Emul_000422600 VITYDAATGKDKIIPGLYAAGEVACASVHGANRLGANSLLDLVVPGRACALDTAEKCKPG
Sman_Smp_061230 VLAYDPVAKKGVVPGLYAAGEAASASVHGANRLGANSLLDLVVPGRACALDTAAKKNKPG
Dtig_m.2I611 VIDYDPHTKDKKIVKGLYAAGEAACS VHGANRLGANSLLDLVVPGRACALDTAEENKPG
Hsap_NP_004159.2 VLRH...VNGDQIVPGLYACGEAACAASVHGANRLGANSLLDLVVPGRACALSIEESCRPG

480 490 500 510 520 530
Emul_000422600 DFGPELHPETME SVANIDKLRSGKGFPPVSDVRL E MORTMOEHAAVFRDGPVKA GVEK
Sman_Smp_061230 DAGPELKPDTCEASIANYEKLR TANGSYPIAQVRLDMORTMOEYAAVFRDGPVKEGCKR
Dtig_m.2I611 EKQPDLSKNAQEOSIANLDKVRHANGSLSTAEIRLKMOKTN OEHAAVFRDGPVQAGCKR
Hsap_NP_004159.2 DKVPPIKPNAQESVMMNLDKRFADGSI RTSELRLSMOKSMONHAAVFRVSVLQEGCKR

540 550 560 570 580 590
Emul_000422600 MLKLYAAKYDN LKVS DKS L I WNSDL E GLELQNL L I N A V Q T I V A E A R K E S R G A H A R E D F
Sman_Smp_061230 NYDLYASRMND LKVS DRSK I WNSDL E ALELQNLMLNALQ T I V G A E A R K E S R G A H A R E D F
Dtig_m.2I611 ILDLYRNDMQQLKLSDRSMTI WNSDL E ALELQNLMLNSLQ T I V G A E N R K E S R G A H S R E D F
Hsap_NP_004159.2 ISKLYG.DLKH LKTFDRGMVWNTD L V E T L E L Q N L M L C A L Q T I Y G A E A R K E S R G A H A R E D Y

	600	610	620	630	640	650
Emul_000422600	RQRIDEVDYSKPIEGG	TKKPMSEHWRKHTMSYQNLK	TGAVKLEVRPVIDKTL	DNVCP	TV	
Sman_Smp_061230	PNRVDEL DYSKPI DGG	KKPF EHWKHTLSYQDV	TGAVKLEVRPVIDATL	DAKSC	PSV	
Dtig_m.2I611	KTRIDEVDYSKPIEGG	VQKPF EHWKHTLSYQNL	ISGAVKLVVRPVIDKTL	DSKCH	TV	
Hsap_NP_004159.2	KVRIDEVDYSKPIQGG	QKPF EHWKHTLSYVDV	GTGKVTLEVRPVIDKTL	NEADCA	TV	

	660
Emul_000422600	PKIRSY
Sman_Smp_061230	PKLRTY
Dtig_m.2I611	PKQIRSY
Hsap_NP_004159.2	PKAIRSY