

A)

M P D L K Y M L **T I L S L Y F F V G S V Q A N C** L I D L A H L N A
 N Y V Y L S Q N N G V Y D I Q R S D I V E I H Q T L Y L L C N G G
 L H R T T F L C R Y D S V F S P A L S S A A C A P P D P V V V K V
 P D T S C S I P S A T F A V G F S F N G R F M E L Y R N C F D G Y
 S L A F Q H S I Y K A Y R Y V N T V P R P N P T W Q S D Q L S G G
 F D N A Y E G R A T Q A C L L T N L G A V Q P Q C K F D **R G H** M T
 P A S A F I S T E L K K S T F R Y L N A I P Q Y R G V N R G K W K
 A V E T W V N N M V R G L Y D N P I I N N V Q I P R T Y D V L K V
 C I G A L G V H R L R H N T N N N M I P I Y L L D N N K I P V P E
 W M Y K I V S H L S G D K W V M L T Y N D V S L P N Q Q A L N Q I
 C H V I P C H P G L N L N T K D V G H T V C C D P Y R F I T I N A
 P H L T G V C

B)

Name		E value
CG9989 (SID)	1 -----MPDLKYM L TILSLYFFV	0
CG12917	1 -----MKIAPMDCSYITLFLYIYFICFLAWE	2.3 e-26
CG14062	1 -----MLRILLLLLAFCAL	1.9 e-22
CG14120	1 -----MWSNRCSIFILALLVASGAVKVSGRLLPRILPESLAEGDEGVTVRGDCCEFK	7.8 e-7
CG3819	1 ----MKCLVLIASFGLFLAS-----AQARILPAEDLPWELPEVPVAVNEIEPRAAG	5.7 e-6
CG14118	1 MMLQFIGLILAVVILREIRAREAIATIPDVGQIIKDLGLHIDGEMFHQGSPCRVDVQND	5.9 e-6
CG6839	1 ----MKCIRFSLLVVGLLAAPAAWARVPCPEVELPPVVEDDGIFERLAVAPPQPVGRAGA	4.4 e-4
CG9989	18 GSVQANCLIDL AHLN ANYVYLSQNNGVYDIQRSDIVEIHQ TLYLLCN -----GGLHRT--	
CG12917	27 VHGDCQILQYMVEQSN GTFTYRDASGSIQLQRLET VPSGV TLLVYCS -----PSVFKETV	
CG14062	15 AHGQCRF TRAQVQGTNRIFMVRGQNRQLSKRTASSAVGETLQ MWCN-----PRDIVATF	
CG14120	51 VNGDLNDPAPLFSRHNSY---EII VPDPTD TVRLVNGELLDMFCPGVGF AAPFVNRWQVT	
CG3819	48 CSIKIR SSELKDPQPLLIKSDTSEIVGFSDTGYVDV DKDTIEFH CTSSLASPLSGKSVT	
CG14118	61 LPRLDKVQPL YLRPGTDLYWLPNAYGHLEVQR GASIELHCSHSF APANGESLDAKLRSIR	
CG6839	57 CSV TIRGG -LPSPEPVY LKTDSEDFYPFSDVGVMEFESGGSTQLWC PSGF NTHSENLLTT	
CG9989	72 FLCRYD S V F SPALSS A ACAPPDP-----VVVKVPD TSCS IPS-----AT F AVG F SFNG-	
CG33346	1 -----MYLVGF KYGN -	1.2 e-42
CG12917	82 QDN--G Q FSVPL P MRC L SP M Q P -----VTKH IRD GDCAGN-----LYAVG Y TI D G-	
CG14062	70 CQAGR VPA F Q PP L P M T C RA A P A -----IT T P V Q D R R CP A T-----MYR V G Y N V G N	
CG14120	108 AT CLQ N K Y L V DD L I Y P E A N E S C -----T A W I F T A L R S G K D C N G G T D L V Q V G F E V E D G G	
CG3819	108 AKCVG GT TE K IDD KE H D L S A T K C -----T S W P V F V G K K S G S S C N G G T L I K V G F E L S G S	
CG14118	121 VKCVQ DT TE F W M G A K I H F S D F V C N H S M P Y T V E R L D R S C G S D T P S P S T S Y L R V G Y D T G D G	
CG6839	115 ASC V S G T F S V G S N E F K D L Y C -----K S W P G F K A V K S G A T C N G G -I V I R V G F E L T S	
CG9989	120 R F M E L Y R N C F D G Y S L A F Q H S I Y K A Y R Y V N T V P R--P N P T W Q S-----D Q L S G G F D N	
CG33346	11 T F M E L Y R S C M D A R T M K A Y F S I N T V Y P T N L K S D R--P P T V E D K D G I I T P A --D E A T E Q M N S	
CG12917	126 K D L E L Y R T C F D C G Q G R L V Y S Q S D V Y K T F F P K R --P F V E F V A D E M F S P Q --E A A A Y M K S N	
CG14062	117 Q F L E L Y R A C F D T R A V R A I F V E H R V Y G K P F Y I T R--P C V Q F S S D G V I S G A --D E A S Y T V R N	
CG14120	163 -F L Q S Y E L C H D A E A E A T R Y V H H V L P S S Y D Y Q H G V A R E N E L D F Y G G R D V N T K Y T Q V Q Q	
CG3819	162 R F A T Q Y E V C F N E D E E V T R Y V Y H R L E P G N Y Y A T G V D R I T F G A G G Y F A G K N V D K L Y T Q A V Q	
CG14118	181 R F V A T M E L C H D P N Q L R T H Y A H H Q L T P A N V H F Q K L K R P R F S T A G H F I C-----F D M A R	
CG6839	168 R F A E Q M Q I C F N E E E E V T R Y T R H K L E P G S N Y Y E T G V A R I T F Q T A G F E D G K N V D K L Y T Q A T Q	
CG9989	169 A Y E G R A T Q A C L L T N L G A V Q P C K F D R G H M T P A S A F I S T E L K K S T F R Y L N A I P Q Y R G V N R G	
CG33346	67 I Y N R F E Y L F G S G Q T Y V P S S R S L S F D R G H L T P V A D Y S F P K I L R Q T N K Y L N V V P Q Y Y N I N R S	
CG12917	182 I Y F A F K C I Y G D D Q S Y L Q N A N Y L V I N R G H M V A S A D F L F T D Q M G S T F R Y L N V V P Q F K S I N D G	
CG14062	173 I H G T F R R L F G N N Q N Y I P N N R D V I N R G H L A A S A D E F F G D Q L C A T F K Y V N A Q F K S I N D G	

CG14120 222 NITISNILGLDASPYFNFSDDRIISRGHMIAKTDQIFGAAQHTTELFINVAPOWQTFNNG
CG3819 222 KETLDKELDMDSREFDSSAKNIFLARGHMGAKADEVFAPEQRATELFINAAPQWQTFNAG
CG14118 234 IYSPKSQEKLMVPGLDVKSGLEFLARGHLTAKADLIYASQOKSSFNMYMNVAPQWQSFNGG
CG6839 228 LETINNELGCGDAEKYFDSSSNVYLARGHLGAKADEDYAPEQRATELFINAAPQWQTFNAG

CG9989 229 KWKAVETWVNNMVRGLYDNPIINNVOIPRTYDVLKVCIGALGVHRLRHNTNNNMIPIYLL
CG33346 127 NWKIVENWVR-----GQK----DVLNVCTGALGVLDLLNRSQKSVSIYLAP
CG12917 242 NWEKIERWVR-----SQIPK-SSYFRVKSGGIGILTLPDTRGFLQSAFLAG
CG14062 233 NWETIERFVR-----NSVTG-NNFVNVRTGARGVLSLPSGN-RPKNVFLSG
CG14120 282 NWEKVETSVR-----KFAVDRNLTDCYTGTWGVSTLPDVDGIERELYLDF
CG3819 282 NWARVEDGVR-----AWVAKENKHVECWTVGVVGV TLPNKNGEQRQLYLSH
CG14118 294 QWSKLEESTR-----QYVARSGITATVYTGIIYG----EMKVAGSKVLHMTT
CG6839 288 NWARVEDGLR-----AWVSKNKLNVNCYTGVYGVTTLPNKDGVETPLYLAV

CG9989 289 DNNK---IPVPEWMYKIVSHL-SGD-KWVMLTYND--VSLPNQQALNQICHVLPCHPGLN
CG33346 169 NKN----PVPRTYKILRSL-TTGIKYVILTSNN--GWETQPNPASVCKVTACPTLN
CG12917 287 SKI----PVPEWYKAVRDA-TGNGLYVFLTYNS--TFQMEKPPCLAICYPNCPHLP
CG14062 277 NRN----PVPQWYKIVRNA-NNQPIVAFLLINN--IYARQRPAAPNFCQPVNCPVALV
CG14120 328 DENNGLIPVPKLYFRVVIDRVIRE-GIVLIGINNPFYLTLEQIQKDYILCQDIGHQLSWL
CG3819 328 DNNGNGLIPVPKLYFRVVIIEP-STKKGIVLIGVNNPHLSLEETKRDYILCTDVSDRINWI
CG14118 336 NANNIGVVAVPQLFYRVLIDEGHPTRGIALVGVNNPHATLAQIHESYIICDPVEESVQWL
CG6839 334 DDNNGNGLIPVPKLYFRVVIDP-SHRGIVFVGVNNPHLTEEQIKRDYVICDDVSDQVTYI

CG9989 342 -----LNTKDVCHTVCCDPYRFITINAPHLTGVC-----
CG33346 221 -----PTG-TGYTFCCDPIDFIRRNVPNLAGVCWDNTENV
CG12917 339 -----NNPNDGYTFCCDPKREFY-----
CG14062 329 -----NTAQAGSFCNPAIFRP-----
CG14120a 387 TWY----KEDLHEGYSYACSVEDFIEVVKDLPLEDLHTNGILG....
CG3819 387 SWK----KTDITACYSYACEVPEFRKKVTHLPEFSVSGLLV--
CG14118 396 SWLHKSNAKGNLKNGLYACSVANLARAVGHLPRPLLEVDELLT
CG6839 393 NWK----TTDIKAGWSYACEVADELKTVKHLPALTAKGGLLV-