Secuencias y Traducción de MusMusculusC5.fna

La secuencia de ADN es:

GCAGCCAGCG ACCCTGCAGA GCGGAGAATG GGAGTAGAGC AGAGTGTCTG
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GGTTCACGCT GAGATGGGGG CTTTCCGGTG GTCCCAGCGG GAGAGGGTTC
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CTCCGCAGTG GAGAGGCCGC GCCAAGCGGA GGCAGCAGCG GCGCGCTGTG
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Secuencia inversa:

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Secuencia inversa complementaria:

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Porcentajes:

- Secuencia:
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    - C: 23.042368%
    - T: 26.993364%
    - G: 26.207249%

- Secuencia inversa complementaria:
    - A: 26.993364%
    - C: 26.207249%
    - T: 23.757019%
    - G: 23.042368%

- Porcentajes agrupados por nucleótidos complementarios:
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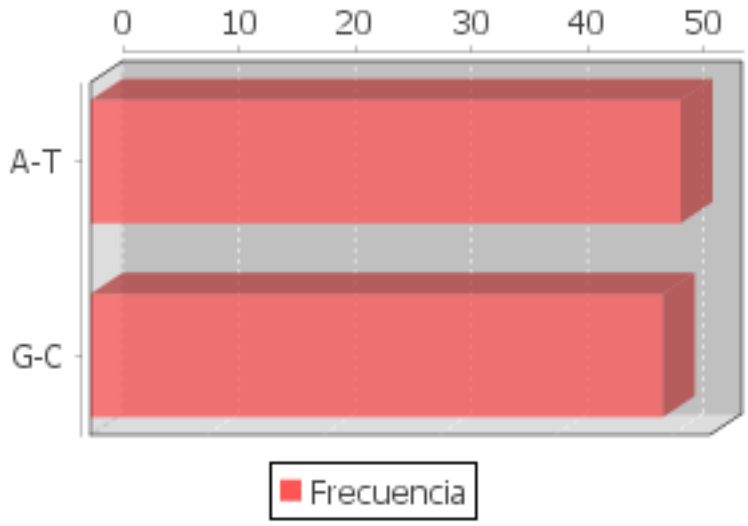
    - G-C: 49.24962%

Diagrama de barras: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A-T
G-C
Frecuencia

La traducción de esta secuencia se muestra a continuación:

Marco de lectura 1:

Secuencia:

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TIRASKWCRQ RLWFCIGLDS RGSSVPRGKG EAFGGRGSCF HLGKHGRLPI
ETLPLYFRKL PKSLEENNMF PLQLSGEIRE GGGHFLLCFE AGFL*PHIHR
RSCPDSCGL* T*KWDFSTYQ KILSGGIVKY C*FSH*NLSL E*GFSPQ**S
QQLRPGVEGA YL*SQLSGGR DW*IL*F*GK LGVNNE*VIT RTERGLVEIS
LSQKKKKKTK KPVSSVLLGV WLYFLPP*WW QIIQVLSFSQ EYVSL*SLTA
SPSISLCNLK MVVAYTFNSS VQDAERGRSN LILRLAWSA* VPGLHNETLS
QISR*SKCRY VGITMGCVSL KVVPRAERWW HMPLFNPSTW EAEAGGFLSS
RPAWSTK*AP GQPGPFRETL SPKKKKKAVP KSGRQSKTQQ SISQVFLWQ*
GSSVGRIRYS VNERLDICSL LLTFLKFNGY *NPLTSPPEG AWSLSNIKL*
TP*KQSE*CT FVCVQSQRSE ITTHASLIPL PSPTVDPFEF DINKMRFLSL
SRTPSTMATS ASSHLNKGIK QMYMSLPQGE KVQAMYIWVD GTGEGLRCKT
RTLDCEPKCV EGECRGGVCA RLGVYAQPRI HLPSVWFARL FRP*SVTRK*
AAA*SGGAAT MEAFL*MDSG VCWYIEEKYW VTFVGDGRLL CANLANPRNL
V*EDWCNWNM LSSL*NSRSQ PFLMLPPFNK ASVVATTNHK MVFAATL*LY
ILLSLF*L*P VFLSIDQVSH SCSGEGWPPH HLPGLGWVTL PRMFLFE*TS
DQITEHGLYT WYLAECG*VL QSLLSENSEV TGESNPTTKT VGKRPSKRWG
SNCLYTSIT* STTVGPVGNG RREMMMA*RR RWGFFVCFGF CPVCV*HTGS
DTRVHRRLAQ RGLVFCSGGS WDAVLWGLSG QEKLG*VTAI GDVRLSLM*M
QSHAPHSS*R QSGGEQRKDE *EADRLLSVC TKNF*NCMYM GVYVRARTRA
PCAQCQQKSK SEDRRN*SYR QLWAFM*LRA LVALTDLGSV NNTHIVAHNH
L*LSIPGDPT LLVWLLPAGS NNTFKVNLIF YLCLAQSYLS GTLMALVPFS
LKAPTATCTS ILLPCFETPS AKTPTSWCYV KFSSITGNLQ ASMGWVWLAV
NPETLGR*HS Q*IEKPLSKN VGMAGWLFYP ELSCWEQCAQ SFLPWFLLLF
V*CWLFCLFA DGQPLPADLK ACV*KFCSF* I*ILDLPLFY LLFFLLNCVC
CMWRACVGEH ALLGAWTSTG SVGVGCLLPV YVSSGGGTQV ARLEWQHLYP
LSRLSSLL** EPIPKSLEDH MNDRVPQSLG STAR*LSVTI LCQTAC*V*I
LTSMSIETSG CAFTLPAHAW SLVCTVLSIS VFR*L*TWGS LTSVKYLLAM
PVRLGGPGPS VLLFQKAVAL LVKGVLCACP VTWVCHLTPS LGVSFSYL*K

*RFFWFVFFC FFFSKTEFLC VALAVLELTL *TRLALNSEI CLPLPPKCWD
QRCAPPCPAK MKVVNTLDSD GYFFSSLGIV FSYTHI*LYV CMSVYLSTFV
PVITVKLST* THLACEPNGQ IILNNRSGLQ CLRH*GIHLT TRSSCPVNLR
MSAWRVVLGW WPACR*GDHL LGFHSHDAAW LTLIIKKSIS HFLQMDNYHF
FHFPW**NMV VRPGSVSPVT STGAV*EGSS PDGMLILYF* RPT*GTSVNG
*WTW*ATSTP GLEWSRNILL WEQTATHLVG LPMASLDPKV RPTG*RVKLP
PLSCYCPGNP LPQR*VQS*N EKMETSSRIL TVDRPCIPHI QRWLEFKVTE
SGEMAQWLPT RPDNLNLLLG PIW*KARNDS LKLASDHTVN MQVHTKLMKS
HSKKASRAST EAEAKKE*PK FSRLQLKAGL VTQESRFRPS *FWALGFPGF
PD*LFPAVS* TSFRPVLLRC GSRQGLRQGH RGGSLPGLLV CWSQDYGDKC
GGYACPGKWC PSFSSSLKTW VGRHMGTSG* QGWITKWGNH RGWILKVNFF
SLVGIPDRTL *GDPNGRSSL DSPFYLASGV RRLWGDSNL* PQAHSRELEW
CRLPYQLQHQ GHAGGEWSEV STFLWSRLYS HGVEGLWVLT RLYVHA*LCI
FVLSLSVCAC WRGDRVNTLG IELTEKHSN* VKIQANGKLN SYWWEEASDW
GSFHPVDNLH CMLKTGLRET VPSFFWDSCP LPSLSMDPHL HCFH*VH*GG
H*QTEQEAPV PHSRLRSQGG PGQRPASDWI PRNLQHQRLF CRCCQPRCQY
PHSPDCRPGE EGLL*RPSAF CQL*PLCGDR SHRPHVSPQR NRRRTLPIQE
LSGLDFQ*SL SQLFPFPVVP TVTQKDGIPR SFYSSCPVNL AFVGQNRGVR
FLISTHQPFL SYLAF**GAG GGRGRVTHCF ISSGMHVR*A *LSQSGCTYG
ERGHFFFLQD S*KGRPNG*D *HFHCW*RAV ISKGETSFLF QMEVR*GVEG
WFLALCFLGL GEGASVPLCV NTAHRVT*WM ALL*RKKKVG ISWSSVHNTK
QSSIFIFKC* KQKSYIYMDV WMYVFLIERT ILFTGCQV*V MRGLA*K*GS
LEVGVRMQYR ESWLSWGLSF ITA*GFPAHS AGADVGQVAS GMPLLATTCP
QA*V*GMRIL TPHTS*KYEL AGQLEHCY*W VGGWGFTGVI FLVGLACH*S
GPFDILSFLK AKQV*ILIRF VGFLTLQNCL FVSMSPSTWL LGELRTGLEL
KHLSPSVTSA SRLLLSF*KS Q*SFFFSFIV NTPPPPSQPV ALQFSGCLCR
QRANCGFSLA MMTSNCHV*Y VRLDNSL*TD CNCQAALINQ PNIYKISSDL
FLCGSQKKKK NLKN*

Las longitudes exactas de los fragmentos son:

Fragmento	Posición	Longitud	Secuencia
F001	[0000,0015]	016	AASDPAERRMGVEQSV
F002	[0017,0043]	027	TARSPISSPPRSPDLFTHPSSGRPPLW
F003	[0045,0151]	107	AHGGSRNVRPPGLWGRTLLPSSSQLLYGAGCSARASR VFAACGPGRLCLVFLGRAVSQAPGRAGLRVVLICSIL AAGGAAPGGRRRWLGFTLRWGLSGGPSGRGFLP
F004	[0153,0177]	025	VGAGALILSSWRRIWGASSRCGWSG
F005	[0179,0182]	004	GWWS
F006	[0184,0405]	222	ALMAPLPSSQRRVLGLYHMTEQWRAGAPEWPAGSAVE RPRQAEAAAARCASRGRPTLATRPLPSPGYGPLGEAL RSTRARGSRHRLSGHFSGKAAFKVDCPNSSGGGKRGS SPSRKYSKKPTIEDVEDGDSRSSESPSNTLGFVAYSV NSGEKSRVKIKSHPSYSSTSPSERSGSPTPSPSPKKL RCLDQREIENEERHEHCSKKRRSREYNPSAFDSHWLG
F007	[0407,0470]	064	VKVRAKDPGCIWQPAETTQNFKNPFHFALQGHQLVLS MYTRLLAPSWSQGTRARGGTQVPLTVH

F008	[0472,0593]	122	CWMCVCGGRGARQRRKADEWCKLKPSRITIRASKWCR QRLWFCIGLDSRGSSVPRGKGEAFGGRGSCFHLGKHG RLPIETLPLYFRKLPKSLEENNMFPLQLSGEIREGGG HFLLCFEAGFL
F009	[0595,0608]	014	PHIHRRSCPDSCGL
F010	[0610,0610]	001	T
F011	[0612,0630]	019	KWDFSTYQKILSGGIVKYC
F012	[0632,0634]	003	FSH
F013	[0636,0640]	005	NLSLE
F014	[0642,0646]	005	GFSPQ
F015	[0649,0661]	013	SQQLRPGVEGAYL
F016	[0663,0671]	009	SQLSGGRDW
F017	[0673,0674]	002	IL
F018	[0676,0676]	001	F
F019	[0678,0685]	008	GKLGVNNE
F020	[0687,0726]	040	VITRTERGLVEISLSQKKKKKTKKPVSSVLLGVWLYF LPP
F021	[0728,0744]	017	WWQIIQVLSFSQEYVSL
F022	[0746,0788]	043	SLTASPSISLCNLKMVVAYTFNSSVQDAERGRSNLIL RLAWSA
F023	[0790,0803]	014	VPGLHNETLSQISR
F024	[0805,0856]	052	SKCRYVGITMGCVSLKVVPRAERWWHMPLFNPSTWEA EAGGFLSSRPAWSTK
F025	[0858,0898]	041	APGQPGPFRETLSPKKKKKAVPKSGRQSKTQQSISQV FLWQ
F026	[0900,0929]	030	GSSVGRIRYSVNERLDICSLLLTFLKFNGY
F027	[0931,0948]	018	NPLTSPPEGAWSLSNIKL
F028	[0950,0951]	002	TP
F029	[0953,0956]	004	KQSE
F030	[0958,1092]	135	CTFVCVQSQRSEITTHASLIPLPSPTVDPFEFDINKM RFLSLSRTPSTMATSASSHLNKGIKQMYMSLPQGEKV QAMYIWVDGTGEGLRCKTRTLDCEPKCVEGECRGGVC ARLGVYAQPRIHLPSVWFARLFRP
F031	[1094,1098]	005	SVTRK
F032	[1100,1102]	003	AAA
F033	[1104,1114]	011	SGGAATMEAFL
F034	[1116,1150]	035	MDSGVCWYIEEKYWVTFVGDGRLLCANLANPRNLV
F035	[1152,1163]	012	EDWCNWNMLSSL
F036	[1165,1196]	032	NSRSQPFLMLPPFNKASVVATTNHKMVFAATL
F037	[1198,1205]	008	LYILLSLF
F038	[1207,1207]	001	L
F039	[1209,1246]	038	PVFLSIDQVSHSCSGEGWPPHHLPGLGWVTLPRMFLF E
F040	[1248,1266]	019	TSDQITEHGLYTWYLAECG
F041	[1268,1308]	041	VLQSLLSENSEVTGESNPTTKTVGKRPSKRWGSNCLY TSIT
F042	[1310,1326]	017	STTVGPVGNGRREMMMA
F043	[1328,1344]	017	RRRWGFFVCFGFCPVCV
F044	[1346,1384]	039	HTGSDTRVHRRLAQRGLVFCSGGSWDAVLWGLSGQEK LG
F045	[1386,1397]	012	VTAIGDVRLSLM

F046	[1399,1407]	009	MQSHAPHSS
F047	[1409,1419]	011	RQSGGEQRKDE
F048	[1421,1433]	013	EADRLLSVCTKNF
F049	[1435,1465]	031	NCMYMGVYVRARTRAPCAQCQQKSKSEDRRN
F050	[1467,1475]	009	SYRQLWAFM
F051	[1477,1500]	024	LRALVALTDLGSVNNTHIVAHNHL
F052	[1502,1606]	105	LSIPGDPTLLVWLLPAGSNNTFKVNLIFYLCLAQSYL SGTLMALVPFSLKAPTATCTSILLPCFETPSAKTPTS WCYVKFSSITGNLQASMGWVWLAVNPETLGR
F053	[1608,1610]	003	HSQ
F054	[1612,1650]	039	IEKPLSKNVGMAGWLFYPELSCWEQCAQSFLPWFLLL FV
F055	[1652,1672]	021	CWLFCLFADGQPLPADLKACV
F056	[1674,1678]	005	KFCSF
F057	[1680,1680]	001	I
F058	[1682,1757]	076	ILDLPLFYLLFFLLNCVCCMWRACVGEHALLGAWTST GSVGVGCLLPVYVSSGGGTQVARLEWQHLYPLSRLSS LL
F059	[1760,1783]	024	EPIPKSLEDHMNDRVPQSLGSTAR
F060	[1785,1795]	011	LSVTILCQTAC
F061	[1797,1797]	001	V
F062	[1799,1832]	034	ILTSMSIETSGCAFTLPAHAWSLVCTVLSISVFR
F063	[1834,1834]	001	L
F064	[1836,1897]	062	TWGSLTSVKYLLAMPVRLGGPGPSVLLFQKAVALLVK GVLCACPVTWVCHLTPSLGVSFSYL
F065	[1899,1899]	001	K
F066	[1901,1929]	029	RFFWFVFFCFFFSKTEFLCVALAVLELTL
F067	[1931,1985]	055	TRLALNSEICLPLPPKCWDQRCAPPCPAKMKVVNTLD SDGYFFSSLGIVFSYTHI
F068	[1987,2008]	022	LYVCMSVYLSTFVPVITVKLST
F069	[2010,2033]	024	THLACEPNGQIILNNRSGLQCLRH
F070	[2035,2064]	030	GIHLTTRSSCPVNLRMSAWRVVLGWWPACR
F071	[2066,2104]	039	GDHLLGFHSHDAAWLTLIIKKSISHFLQMDNYHFFHF PW
F072	[2107,2124]	018	NMVVRPGSVSPVTSTGAV
F073	[2126,2138]	013	EGSSPDGMLILYF
F074	[2140,2142]	003	RPT
F075	[2144,2149]	006	GTSVNG
F076	[2151,2153]	003	WTW
F077	[2155,2193]	039	ATSTPGLEWSRNILLWEQTATHLVGLPMASLDPKVRP TG
F078	[2195,2213]	019	RVKLPPLSCYCPGNPLPQR
F079	[2215,2217]	003	VQS
F080	[2219,2272]	054	NEKMETSSRILTVDRPCIPHIQRWLEFKVTESGEMAQ WLPTRPDNLNLLLGPIW
F081	[2274,2316]	043	KARNDSLKLASDHTVNMQVHTKLMKSHSKKASRASTE AEAKKE
F082	[2318,2339]	022	PKFSRLQLKAGLVTQESRFRPS
F083	[2341,2351]	011	FWALGFPGFPD
F084	[2353,2358]	006	LFPAVS

F085	[2360,2428]	069	TSFRPVLLRCGSRQGLRQGHRGGSLPGLLVCWSQDYG DKCGGYACPGKWCPSFSSSLKTWVGRHMGTSG
F086	[2430,2459]	030	QGWITKWGNHRGWILKVNFFSLVGIPDRTL
F087	[2461,2488]	028	GDPNGRSSLDSPFYLASGVRRLWGDSNL
F088	[2490,2545]	056	PQAHSRELEWCRLPYQLQHQGHAGGEWSEVSTFLWSR LYSHGVEGLWVLTRLYVHA
F089	[2547,2578]	032	LCIFVLSLSVCACWRGDRVNTLGIELTEKHSN
F090	[2580,2643]	064	VKIQANGKLNSYWWEEASDWGSFHPVDNLHCMLKTGL RETVPSFFWDSCPLPSLSMDPHLHCFH
F091	[2645,2646]	002	VH
F092	[2648,2650]	003	GGH
F093	[2652,2713]	062	QTEQEAPVPHSRLRSQGGPGQRPASDWIPRNLQHQRL FCRCCQPRCQYPHSPDCRPGEEGLL
F094	[2715,2722]	008	RPSAFCQL
F095	[2724,2756]	033	PLCGDRSHRPHVSPQRNRRRTLPIQELSGLDFQ
F096	[2758,2814]	057	SLSQLFPFPVVPTVTQKDGIPRSFYSSCPVNLAFVGQ NRGVRFLISTHQPFLSYLAF
F097	[2817,2837]	021	GAGGGRGRVTHCFISSGMHVR
F098	[2839,2839]	001	A
F099	[2841,2860]	020	LSQSGCTYGERGHFFFLQDS
F100	[2862,2867]	006	KGRPNG
F101	[2869,2869]	001	D
F102	[2871,2875]	005	HFHCW
F103	[2877,2894]	018	RAVISKGETSFLFQMEVR
F104	[2896,2926]	031	GVEGWFLALCFLGLGEGASVPLCVNTAHRVT
F105	[2928,2932]	005	WMALL
F106	[2934,2958]	025	RKKKVGISWSSVHNTKQSSIFIFKC
F107	[2960,2987]	028	KQKSYIYMDVWMYVFLIERTILFTGCQV
F108	[2989,2994]	006	VMRGLA
F109	[2996,2996]	001	K
F110	[2998,3022]	025	GSLEVGVRMQYRESWLSWGLSFITA
F111	[3024,3051]	028	GFPAHSAGADVGQVASGMPLLATTCPQA
F112	[3053,3053]	001	V
F113	[3055,3064]	010	GMRILTPHTS
F114	[3066,3077]	012	KYELAGQLEHCY
F115	[3079,3097]	019	WVGGWGFTGVIFLVGLACH
F116	[3099,3113]	015	SGPFDILSFLKAKQV
F117	[3115,3166]	052	ILIRFVGFLTLQNCLFVSMSPSTWLLGELRTGLELKH LSPSVTSASRLLLSF
F118	[3168,3170]	003	KSQ
F119	[3172,3217]	046	SFFFSFIVNTPPPPSQPVALQFSGCLCRQRANCGFSL AMMTSNCHV
F120	[3219,3226]	008	YVRLDNSL
F121	[3228,3263]	036	TDCNCQAALINQPNIYKISSDLFLCGSQKKKKNLKN

Marco de lectura 2:

Secuencia:

QPATLQSGEW E*SRVSEQHA HPSPLRLALL TCSPIHHPAG HRSGKRTEGP
GMYGRPGCGV ALYFPAPVSC CTERDAALVP PACLQRAARA GSAWCS*DAL
*AKLREGRGC GLF*SVLYLR PEAPPREAGA VGWGSR*DGG FPVVPAGEGS
CLRWAQAP*S SLPGGAFGGR RHAVGGLVED GGPKR*WHHS PAPNAVS*AF
TI*PNNGEPE PRSGRRAPQW RGRAKRRQQR RAVPPAVAPL SPPGLYPRRG
MAPWERP*DL RGPEGRGTDF PDILVGRLLS KWIAPTPPGA GSGDPPPAAN
TQRNQPLKT* KMEILGPQSP LLIL*ASLPT L*TPGRSRGL RLNRTRLIPA
PPPPNGLGPP LHRPRPKSSV A*TSEKSRTR RGMNTALKRG GLESTTPVHL
ILIGWGE*KS GRRTPGASGN PQKLLRILRT HSTLHYRDTS WCYLCTLGCW
HPAGLREPGP EEELRFP*QF INAGCVCVGG GGHGRGGKLM SGVN*SHLEL
QSGPLSGVGR GFGSASDLTA EAHLFPGGRV RLLEGEAVVF TWANMDGCP*
KLCHCTSESC PSHWRRTICS LSSYPGRLGR EGGISSCVLR LVFCSLTFIE
DLAPTPVACK LRSGIFLRTR KYYPVGSSNT VNFHIEICLW SKAFHHSNEV
SS*GLVWRGH TFNPSSQEAE TGRSSDFEES LV*IMSK*LL GQREGLLRFL
CLKKKKKKPK NQSAVCSLEY GFTFYHLSGG R*YRSFLSPR NMLAFKVLQL
ALVFHCVI*R WWWHTPLILA FRMLRGADLI *F*G*PGRHK FQGSTMRLCL
K*VDSLNVGM *GLQWVVCPL RLFQELSGGG TCLYLIPALG RQRQVDF*VQ
GQPGLQSELQ DNQGHSEKPC LQKKKKRLFQ RVEDKARLNS QLVKSFCGNK
VVLLVE*DIL LMNVLIFVLS C*HFSSLTVI KIP*LVPLRG HGPCLI*NFK
PLESRVNNAP LCVSSPRGAR SPRTPA*FPC RPLQWIPLNS ILIKCDFCLS
PEHLPPWPPQ QVPT*TKASS KCTCPCPRVR KSKPCISGLM VPEKDCAARP
VPWTVSPSVW KVSAGAECAH AWECTHSLGS TFLLFGLQGF SDLSQSPVSK
LLHSLEAQQQ WKPFFRWTLA CAGTLKKNTG SRLWGMGGCC VLTWPTPGT*
FERTGVTGIC YLVYRTVGLN PS*CFHHLIR LVLWQPPTIK WFLPLLYNCI
YF*VYFSCSL CFSA*TK*AI AAQERGGPLT IYLA*DGLLF QGCFCLSERV
TR*QSMDCIL GTWQSVGRFF SLCFLRTQR* LESQTRPLRQ *GKDQASGGE
ATVYIQA*LE VQQLDLWGMG EGR**WPRGG GGVFLFVLGF VLCVSDTLEV
IPEYTGDLHR EDWFSAQVAL GMQCSGDSQV RRNWDR*QR* VTSGYP*CRC
SHMHLTPHKD KVVVSNERMS KRLTVFLACA LKTFKTVCIW VCMCARARAL
HVLSASRNQR VRTAGTEVTD SCGLSCD*EL LLLSPIWVQL TTPT*WLTTI
CNSQFREIQP SSSGFFLQAQ ITRLKLI*FS IFVLPRVT*V EL*WL*YLSV
RLQQRHVPP SCCHVSRPLP QRPQQAGAM SFQV*PETCR QVWDGCGWL*
ILKL*GGDIL NELRSRSLRT *GWQGGYSTL NFPVGNSVLN PFFHGSFYCL
YSVGSSVCLL TGNLYLLI*K PVFKSSVVFE FKY*IYHCST CFFFF*IVCA
VCGEHASESM PCWVRGRQRA ALELVVSCLF M*ALEVELRL PGSSGNTFTH
*AVSVVFSDK SPSRSHWKIT *MTVCHNHLG VLHVNYRLLF YARQLVESEY
SQV*ASRLRD VHLPCLHMRG V*FALCYPSP FSDSFEPGEV SLL*NIF*QC
Q*GLVALGLQ CFCFKRQ*HY W*KVCSVPVL SPGCAT*HPL LGFHFLICEN
EGFFGLFFFV FFFPRQSFSV *PWLSWNSLC RPGWP*TQKS ACLCLPSAGI
KGVRHHALPK *RLLIP*TQM VIFFLAWELF SAILIYNYMS VCLSTYLLLY
QS*L*NLALK LTWHVNLMDK LFSITDLAFS V*DTREYI*Q LEAVVL*I*E
*VPGVWCWDG GQHADRVTTC SDSIPMMLRG *L*L*KSLLA ISCKWTIITS
SIFLGDKTWW LGLGQSLL*P ALELCERALV LMAC*FFISR DQLEAHL*TD
NGHGEQPAPL VWNGAGIYSY GNRRPPIWLA FQWLPWTPRY VPLGKG*NFL
P*VVTVQEIP FPRDRCNPEM RKWRPAAES* Q*TDLASLTS RGG*NLK*QR
VVRWLSGYPP GLTT*ISSWD PFGRRQEMTP SS*PLTIL*I CKYTQN**KA

TQKKQAGPLP RPRQRRNDLN SPACS*RQD* *LRKAGLGPP SFGLWGFLDS
LTDSSLLCLE PPSGPYYCGV GADKAYGRDI VEAHYRACLY AGVKITGTNA
EVMPAQVNGA HLFPPL*RPG *VGTWGLRAS RGGSQSGAIT EGGS*RSTFS
L*WEFQIGPC EGIRMGDHLW IARFILHRVC EDFGVIATFD PKPIPGNWNG
AGCHTNFSTK AMREENGLK* VPSFGAVCIL MG*KGFGYSQ GCTYMPSSAY
LF*ACQFVPV GEAIG*IL*E *N*QKSIRTK *KYKQMGNLI LTGGKRRVIG
GLSIQWIICT AC*RLA*GRQ CLLSSGIHAR SHPCRWTLIF TVSTRCIEEA
IDKLSKRHQY HIRAYDPKGG LDNARRLTGF HETSNINDFS AGVANRGASI
RIPRTVGQEK KGYFEDRRPS ANCDPYAVTE AIVRTCLLNE TGDEPFQYKN
*VD*TSSDPS PSSSLSQLSP L*LKRMEYQG LFIPRAQLIL LLLVRIEGSG
S*SLHTNPFF PI*LSSRERE GGGEG*PTAS SHRVCMSGRH SCHKAGVLMV
KEDIFFFFRI VERAGPTAEI DISTVGRELL FLKGKPAFCS KWKLGEELKV
GFLRCASLAW GRGHPSPSV* TQLTASPDGW PYCEGRKKLA FLGPPFITQS
RVVFLYLNVK NKKVIYIWMC GCMSF*LREP SYSLGAKFE* *GAWLRSEAP
LR*G*GCSTG KVGYLGVSAS LLLRVSLPTL QEQMLDR*PV GCHCLPPPVP
RLRFRGCVYL LHTRVRSMSW LVNLNTVTDG WVGGGLLGLF FWWD*HVTKA
GLLIY*VF*K QNKFRF*SDL *GF*LYRIAC LFQCLPPLGS *GN*GQA*S*
NTCLLVSPLP ADCYFPSEKA NSLFFFLL** THPHLHPSLL PFSFLVVCVG
SGPTVVSLLP **LLIAMYSM FG*ITHCKQT VTARQRL*IN LTFIRFPLTC
FFVVPKKKKK TSKI

Las longitudes exactas de los fragmentos son:

Fragmento	Posición	Longitud	Secuencia
F001	[0000,0010]	011	QPATLQSGEWE
F002	[0012,0095]	084	SRVSEQHAHPSPLRLALLTCSPIHHPAGHRSGKRTEG PGMYGRPGCGVALYFPAPVSCCTERDAALVPPACLQR AARAGSAWCS
F003	[0097,0099]	003	DAL
F004	[0101,0112]	012	AKLREGRGCGLF
F005	[0114,0135]	022	SVLYLRPEAPPREAGAVGWGSR
F006	[0137,0157]	021	DGGFPVVPAGEGSCLRWAQAP
F007	[0159,0184]	026	SSLPGGAFGGRRHAVGGLVEDGGPKR
F008	[0186,0196]	011	WHHSPAPNAVS
F009	[0198,0201]	004	AFTI
F010	[0203,0256]	054	PNNGEPEPRSGRRAPQWRGRAKRRQQRRAVPPAVAPL SPPGLYPRRGMAPWERP
F011	[0258,0308]	051	DLRGPEGRGTDFPDILVGRLLSKWIAPTPPGAGSGDP PPAANTQRNQPLKT
F012	[0310,0323]	014	KMEILGPQSPLLIL
F013	[0325,0330]	006	ASLPTL
F014	[0332,0370]	039	TPGRSRGLRLNRTRLIPAPPPPNGLGPPLHRPRPKSS VA
F015	[0372,0406]	035	TSEKSRTRRGMNTALKRGGLESTTPVHLILIGWGE
F016	[0408,0466]	059	KSGRRTPGASGNPQKLLRILRTHSTLHYRDTSWCYLC TLGCWHPAGLREPGPEEELRFP
F017	[0468,0493]	026	QFINAGCVCVGGGGHGRGGKLMSGVN

F018	[0495,0548]	054	SHLELQSGPLSGVGRGFGSASDLTAEAHLFPGGRVRL LEGEAVVFTWANMDGCP
F019	[0550,0651]	102	KLCHCTSESCPSHWRRTICSLSSYPGRLGREGGISSC VLRLVFCSLTFIEDLAPTPVACKLRSGIFLRTRKYYP VGSSNTVNFHIEICLWSKAFHHSNEVSS
F020	[0653,0681]	029	GLVWRGHTFNPSSQEAETGRSSDFEESLV
F021	[0683,0686]	004	IMSK
F022	[0688,0730]	043	LLGQREGLLRFLCLKKKKKKPKNQSAVCSLEYGFTFY HLSGGR
F023	[0732,0757]	026	YRSFLSPRNMLAFKVLQLALVFHCVI
F024	[0759,0779]	021	RWWWHTPLILAFRMLRGADLI
F025	[0781,0781]	001	F
F026	[0783,0783]	001	G
F027	[0785,0800]	016	PGRHKFQGSTMRLCLK
F028	[0802,0809]	008	VDSLNVGM
F029	[0811,0846]	036	GLQWVVCPLRLFQELSGGGTCLYLIPALGRQRQVDF
F030	[0848,0905]	058	VQGQPGLQSELQDNQGHSEKPCLQKKKKRLFQRVEDK ARLNSQLVKSFCGNKVVLLVE
F031	[0907,0920]	014	DILLMNVLIFVLSC
F032	[0922,0932]	011	HFSSLTVIKIP
F033	[0934,0945]	012	LVPLRGHGPCLI
F034	[0947,0975]	029	NFKPLESRVNNAPLCVSSPRGARSPRTPA
F035	[0977,1013]	037	FPCRPLQWIPLNSILIKCDFCLSPEHLPPWPPQQVPT
F036	[1015,1148]	134	TKASSKCTCPCPRVRKSKPCISGLMVPEKDCAARPVP WTVSPSVWKVSAGAECAHAWECTHSLGSTFLLFGLQG FSDLSQSPVSKLLHSLEAQQQWKPFFRWTLACAGTLK KNTGSRLWGMGGCCVLTWPTPGT
F037	[1150,1171]	022	FERTGVTGICYLVYRTVGLNPS
F038	[1173,1201]	029	CFHHLIRLVLWQPPTIKWFLPLLYNCIYF
F039	[1203,1213]	011	VYFSCSLCFSA
F040	[1215,1216]	002	TK
F041	[1218,1233]	016	AIAAQERGGPLTIYLA
F042	[1235,1251]	017	DGLLFQGCFCLSERVTR
F043	[1253,1278]	026	QSMDCILGTWQSVGRFFSLCFLRTQR
F044	[1280,1289]	010	LESQTRPLRQ
F045	[1291,1306]	016	GKDQASGGEATVYIQA
F046	[1308,1322]	015	LEVQQLDLWGMGEGR
F047	[1325,1385]	061	WPRGGGGVFLFVLGFVLCVSDTLEVIPEYTGDLHRED WFSAQVALGMQCSGDSQVRRNWDR
F048	[1387,1388]	002	QR
F049	[1390,1395]	006	VTSGYP
F050	[1397,1476]	080	CRCSHMHLTPHKDKVVVSNERMSKRLTVFLACALKTF KTVCIWVCMCARARALHVLSASRNQRVRTAGTEVTDS CGLSCD
F051	[1478,1493]	016	ELLLLSPIWVQLTTPT
F052	[1495,1526]	032	WLTTICNSQFREIQPSSSGFFLQAQITRLKLI
F053	[1528,1537]	010	FSIFVLPRVT
F054	[1539,1541]	003	VEL
F055	[1543,1544]	002	WL
F056	[1546,1549]	004	YLSV

F057	[1551,1578]	028	RLQQRHVPPSCCHVSRPLPQRPQQAGAM
F058	[1580,1583]	004	SFQV
F059	[1585,1598]	014	PETCRQVWDGCGWL
F060	[1600,1603]	004	ILKL
F061	[1605,1619]	015	GGDILNELRSRSLRT
F062	[1621,1667]	047	GWQGGYSTLNFPVGNSVLNPFFHGSFYCLYSVGSSVCLLTGNLYLLI
F063	[1669,1682]	014	KPVFKSSVVFEFKY
F064	[1684,1694]	011	IYHCSTCFFFF
F065	[1696,1730]	035	IVCAVCGEHASESMPCWVRGRQRAALELVVSCLFM
F066	[1732,1749]	018	ALEVELRLPGSSGNTFTH
F067	[1751,1769]	019	AVSVVFSDKSPSRSHWKIT
F068	[1771,1802]	032	MTVCHNHLGVLHVNYRLLFYARQLVESEYSQV
F069	[1804,1820]	017	ASRLRDVHLPCLHMRGV
F070	[1822,1842]	021	FALCYPSPFSDSFEPGEVSLL
F071	[1844,1846]	003	NIF
F072	[1848,1850]	003	QCQ
F073	[1852,1866]	015	GLVALGLQCFCFKRQ
F074	[1868,1870]	003	HYW
F075	[1872,1885]	014	KVCSVPVLSPGCAT
F076	[1887,1919]	033	HPLLGFHFLICENEGFFGLFFFVFFFPRQSFSV
F077	[1921,1934]	014	PWLSWNSLCRPGWP
F078	[1936,1959]	024	TQKSACLCLPSAGIKGVRHHALPK
F079	[1961,1965]	005	RLLIP
F080	[1967,2001]	035	TQMVIFFLAWELFSAILIYNYMSVCLSTYLLLYQS
F081	[2003,2003]	001	L
F082	[2005,2030]	026	NLALKLTWHVNLMDKLFSITDLAFSV
F083	[2032,2037]	006	DTREYI
F084	[2039,2045]	007	QLEAVVL
F085	[2047,2047]	001	I
F086	[2049,2049]	001	E
F087	[2051,2079]	029	VPGVWCWDGGQHADRVTTCSDSIPMMLRG
F088	[2081,2081]	001	L
F089	[2083,2083]	001	L
F090	[2085,2117]	033	KSLLAISCKWTIITSSIFLGDKTWWLGLGQSLL
F091	[2119,2133]	015	PALELCERALVLMAC
F092	[2135,2146]	012	FFISRDQLEAHL
F093	[2148,2195]	048	TDNGHGEQPAPLVWNGAGIYSYGNRRPPIWLAFQWLPWTPRYVPLGKG
F094	[2197,2200]	004	NFLP
F095	[2202,2228]	027	VVTVQEIPFPRDRCNPEMRKWRPAAES
F096	[2230,2230]	001	Q
F097	[2232,2242]	011	TDLASLTSRGG
F098	[2244,2246]	003	NLK
F099	[2248,2263]	016	QRVVRWLSGYPPGLTT
F100	[2265,2281]	017	ISSWDPFGRRQEMTPSS
F101	[2283,2287]	005	PLTIL
F102	[2289,2295]	007	ICKYTQN

F103	[2298,2324]	027	KATQKKQAGPLPRPRQRRNDLNSPACS
F104	[2326,2328]	003	RQD
F105	[2331,2415]	085	LRKAGLGPPSFGLWGFLDSLTDSSLLCLEPPSGPYYC GVGADKAYGRDIVEAHYRACLYAGVKITGTNAEVMPA QVNGAHLFPPL
F106	[2417,2419]	003	RPG
F107	[2421,2443]	023	VGTWGLRASRGGSQSGAITEGGS
F108	[2445,2450]	006	RSTFSL
F109	[2452,2518]	067	WEFQIGPCEGIRMGDHLWIARFILHRVCEDFGVIATF DPKPIPGNWNGAGCHTNFSTKAMREENGLK
F110	[2520,2531]	012	VPSFGAVCILMG
F111	[2533,2551]	019	KGFGYSQGCTYMPSSAYLF
F112	[2553,2564]	012	ACQFVPVGEAIG
F113	[2566,2567]	002	IL
F114	[2569,2569]	001	E
F115	[2571,2571]	001	N
F116	[2573,2579]	007	QKSIRTK
F117	[2581,2611]	031	KYKQMGNLILTGGKRRVIGGLSIQWIICTAC
F118	[2613,2615]	003	RLA
F119	[2617,2749]	133	GRQCLLSSGIHARSHPCRWTLIFTVSTRCIEEAIDKL SKRHQYHIRAYDPKGGLDNARRLTGFHETSNINDFSA GVANRGASIRIPRTVGQEKKGYFEDRRPSANCDPYAV TEAIVRTCLLNETGDEPFQYKN
F120	[2751,2752]	002	VD
F121	[2754,2770]	017	TSSDPSPSSSLSQLSPL
F122	[2772,2800]	029	LKRMEYQGLFIPRAQLILLLLVRIEGSGS
F123	[2802,2811]	010	SLHTNPFFPI
F124	[2813,2824]	012	LSSREREGGGEG
F125	[2826,2918]	093	PTASSHRVCMSGRHSCHKAGVLMVKEDIFFFFRIVER AGPTAEIDISTVGRELLFLKGKPAFCSKWKLGEELKV GFLRCASLAWGRGHPSPSV
F126	[2920,2974]	055	TQLTASPDGWPYCEGRKKLAFLGPPFITQSRVVFLYL NVKNKKVIYIWMCGCMSF
F127	[2976,2988]	013	LREPSYSLGAKFE
F128	[2991,3001]	011	GAWLRSEAPLR
F129	[3003,3003]	001	G
F130	[3005,3036]	032	GCSTGKVGYLGVSASLLLRVSLPTLQEQMLDR
F131	[3038,3093]	056	PVGCHCLPPPVPRLRFRGCVYLLHTRVRSMSWLVNLN TVTDGWVGGGLLGLFFWWD
F132	[3095,3104]	010	HVTKAGLLIY
F133	[3106,3107]	002	VF
F134	[3109,3115]	007	KQNKFRF
F135	[3117,3119]	003	SDL
F136	[3121,3122]	002	GF
F137	[3124,3139]	016	LYRIACLFQCLPPLGS
F138	[3141,3142]	002	GN
F139	[3144,3146]	003	GQA
F140	[3148,3148]	001	S
F141	[3150,3177]	028	NTCLLVSPLPADCYFPSEKANSLFFFLL
F142	[3180,3209]	030	THPHLHPSLLPFSFLVVCVGSGPTVVSLLP

F143	[3212,3221]	010	LLIAMYSMFG
F144	[3223,3236]	014	ITHCKQTVTARQRL
F145	[3238,3263]	026	INLTFIRFPLTCFFVVPKKKKKTSKI

Marco de lectura 3:

Secuencia:

SQRPCRAENG SRAECLNSTL THLLSASLS* PVHPSIIRPA TALVSARRVQ
ECTAARAVGS HSTSQLQSAA VRSGMQRSCL PRVCSVRPGP ALLGVPRTRC
EPSSGKGGVA GCFDLFYTCG RRRRPGRQAP LAGVHAEMGA FRWSQRERVL
ALGGRRRLDP LFLAAHLGGV VTLWVVWLRM VVLSVDGTTP QLPTPCPRPL
PYDRTMESRS PGVAGGLRSG EAAPSGGSSG ALCLPRSPHS RHPASTLAGV
WPPGRGLEIY AGPRVAAPTF RTF*WEGCFQ SGLPQLLRGR EAGILPQPQI
LKETNH*RRR RWRFSVLRVP F*YFRLRCLL CELRGEVEG* D*IAPVLFQH
LPLRTVWVPH SIALAQKAPL LRPARNRERG EA*TLL*KEE V*RVQPQCI*
FSLAGVSKSQ GEGPRVHLAT RRNYSEF*EP IPLCTTGTPV GAIYVH*AAG
TQLVSGNQGQ RRNSGSPNSS LMLDVCVWGA GGTAEEES** VV*IEAI*NY
NPGL*VV*AE ALVLHRT*QQ RLICSPGEG* GFWRERQLFS LGQTWTVAHR
NFATVLQKVA QVIGGEQYVP SPAIRGD*GG RGAFPLVF*G WFFVASHSSK
ILPRLLWLVN LEVGFFYVPE NIIRWDRQIL LIFTLKSVSG VRLFTTVMKS
AVEAWCGGGI PLIPALRRQR LVDPLILRKA WCK**VSNY* DRERAC*DFS
VSKKKKKNQK TSQQCAPWSM ALLFTTLVVA DNTGPFFLPG IC*PLKSYS*
P*YFIV*SKD GGGIHL*F*R SGC*EGQI*F DSEASLVGIS SRAPQ*DFVS
NK*IV*M*VC RDYNGLCVP* GCSKS*AVVA HAFI*SQHLG GRGRWISEFK
ASLVYKVSSR TTRAIQRNPV SKKKKKGCSK EWKTKQDSTV N*SSLSVAIR
*FCW*NKIFC **TS*YLFSP ANISQV*RLL KSLN*SP*GG MVLV*YKTLN
PLKAE*IMHL CVCPVPEERD HHARQPDSLA VPYSGSL*IR Y**NAISVSL
QNTFHHGHLS KFPLEQRHQA NVHVPAPG*E SPSHVYLG*W YRRRTALQDP
YPGL*AQVCG R*VPGRSVRT PGSVRTASDP PSFCLVCKAF QTLVSHP*VS
CCIVWRRSNN GSLSLDGLWR VLVH*RKILG HVCGGWEAAV C*PGQPQEPS
LRGLV*LEYA I*FIEQSVST LPNASTI**G *CCGNHQP*N GFCRYFIIVY
TSKFILVVAC VSQHRPSKP* LLRRGVAPSP STWLRMGYSS KDVSV*VNE*
PDNRAWIVYL VLGRVWVGSS VSAF*ELRGN WRVKPDH*DS REKTKQAVGK
QLFIYKHNLK YNSWTCGEWE KGDDDGLEEE VGFFCLFWVL SCVCLTHWK*
YQSTQETCTE RTGFLLRWLL GCSALGTLRS GETGIGDSDR *RQVIPDVDA
VTCTSLLIKT KWW*ATKG*V RG*PSS*RVH *KLLKLYVYG CVCARAHARS
MCSVPAEIKE *GPQELKLQT VVGFHVIESS CCSHRSGFS* QHPHSGSQPS
VTLNSGRSNP PRLASSCRLK *HV*S*FNFL SLSCPELPEW NFDGSSTFQS
EGSNSDMYLH PVAMFRDPFR KDPNKLVLCE VFKYNRKPAG KYGMGVAGCK
S*NSREVTFS MN*EAAL*ER RDGRVAILP* TFLLGTVCSI LSSMVPFIVC
IVLALLSVC* RATSTC*SKS LCLKVL*FLN LNTRSTTVLP AFFSSELCVL
YVESMRRRAC LAGCVDVNGQ RWSWLSPACL CELWRWNSGC QARVATPLPT
EPSQ*SSLIR AHPEVIGRSH E*PCATITWE YCTLTIGYYF MPDSLLSLNT
HKYEHRDFGM CIYPACTCVE FSLHCAIHLR FQIALNLGKS HFCEISSSNA
SKAWWPWAFS ASVSKGSSII GKRCALCLSC HLGVPPNTLS WGFIFLFVKM

KVFLVCFFLF FFFQDRVSLC SPGCPGTHSV DQAGLELRNL PASASQVLGS
KVCATMPCQN EGC*YLRLRW LFFF*LGNCF QLYSYIIICL YVCLPIYFCT
SHNCKT*HLN SPGM*T*WTN YSQ*QIWPSV SETLGNTSDN *KQLSCESEN
ECLACGVGMV ASMQIG*PLA RIPFP*CCVA DFNYKKVY*P FPANGQLSLL
PFSLVIKHGG *AWVSLSCDQ HWSCVRGL*S *WHVDSLFLE TNLRHICKRI
MDMVSNQHPW FGMEQEYTLM GTDGHPFGWP SNGFPGPQGT SHWVKGETSS
PKLLLSRKSP SPEIGAILK* ENGDQQQNLN SRPTLHPSHP EVVRI*SDRE
W*DGSVVTHQ A*QPESPPGT HLVEGKK*LP QVSL*PYCKY ASTHKTNEKP
LKKSKQGLYR GRGKEGMT*I LPPAAEGRTS DSGKQV*ALL VLGFGVSWIP
*LTLPCCVLN LLQARITAVW EQTRPTAGTS WRLTTGPACM LESRLRGQMR
RLCLPR*MVP IFFLLSEDLG R*AHGDFGLA GVDHKVGQSQ RVDLKGQLFL
SSGNSR*DPV RGSEWEIIFG *PVLSCIGCA KTLG**QPLT PSPFQGTGMV
QAAIPTSAPR PCGRRMV*SK YLPLEPSVFS WGRRALGTHK AVRTCLALHI
CSKPVSLCLL ERR*GKYFRN RIDRKAFELS KNTSKWET*F LLVGRGE*LG
VFPSSG*FAL HVKDWPEGDS AFFLLGFMPA PILVDGPSSS LFPLGALRRP
LTN*ARGTST TFAPTIPRGA WTTPGV*LDS TKPPTSTTFL PVLPTAVPVS
AFPGLSARRR RATLKTVGLL PIVTPMR*QK PSSARVSSTK QATNPSNTRT
KWTRLPVIPL PALPFPSCPH CNSKGWNTKV FLFLVPS*SC FCWSE*RGQV
LNLYTPTLSF LSSFLVGSGR GEGKGNPLLH LIGYACPVGI AVTKRVYLW*
KRTFFFSSG* LKGQAQRLRL TFPLLVESCY F*RGNQLSVP NGS*VRS*RL
VSCAVLPWLG GGGIRPPLCE HSSPRHLMDG PTVKEEKSWH FLVLRS*HKA
E*YFYI*MLK TKKLYIYGCV DVCLSN*ENH PIHWVPSLSD EGLGLEVRLP
*GRGEDAVPG KLVILGSQLH YCLGFPCPLC RSRCWTGSQW DATACHHLSP
GLGLGDAYTY STHELEV*VG WST*TLLLMG GWVGVYWGYF FGGISMSLKR
AF*YIKFFKS KTSLDFNQIC RVSNFTELPV CFNVSLHLAL RGIKDRPRVK
TLVS*CHLCQ QTVTFLLKKP IVFFFFFYSK HTPTSIPACC PSVFWLFVSA
AGQLWFLSCH DDF*LPCIVC SVR*LTVNRL *LPGSAYKST *HL*DFL*LV
SLWFPKKKKK PQKL

Las longitudes exactas de los fragmentos son:

Fragmento	Posición	Longitud	Secuencia
F001	[0000,0028]	029	SQRPCRAENGSRAECLNSTLTHLLSASLS
F002	[0030,0272]	243	PVHPSIIRPATALVSARRVQECTAARAVGSHSTSQLQ SAAVRSGMQRSCLPRVCSVRPGPALLGVPRTRCEPSS GKGGVAGCFDLFYTCGRRRRPGRQAPLAGVHAEMGAF RWSQRERVLALGGRRRLDPLFLAAHLGGVVTLWVVWL RMVVLSVDGTTPQLPTPCPRPLPYDRTMESRSPGVAG GLRSGEAAPSGGGSSGALCLPRSPHSRHPASTLAGVWP PGRGLEIYAGPRVAAPTFRTF
F003	[0274,0305]	032	WEGCFQSGLPQLLRGREAGILPQPQILKETNH
F004	[0307,0320]	014	RRRRWRFSVLRVPF
F005	[0322,0338]	017	YFRLRCLLCELRGEVEG
F006	[0340,0340]	001	D
F007	[0342,0381]	040	IAPVLFQHLPLRTVWVPHSIALAQKAPLLRPARNRER GEA
F008	[0383,0385]	003	TLL

F009	[0387,0390]	004	KEEV
F010	[0392,0398]	007	RVQPQCI
F011	[0400,0426]	027	FSLAGVSKSQGEGPRVHLATRRNYSEF
F012	[0428,0445]	018	EPIPLCTTGTPVGAIYVH
F013	[0447,0487]	041	AAGTQLVSGNQGQRRNSGSPNSSLMLDVCVWGAGGTAEEES
F014	[0490,0491]	002	VV
F015	[0493,0496]	004	IEAI
F016	[0498,0503]	006	NYNPGL
F017	[0505,0506]	002	VV
F018	[0508,0516]	009	AEALVLHRT
F019	[0518,0528]	011	QQRLICSPGEG
F020	[0530,0576]	047	GFWRERQLFSLGQTWTVAHRNFATVLQKVAQVIGGEQYVPSPAIRGD
F021	[0578,0587]	010	GGRGAFPLVF
F022	[0589,0682]	094	GWFFVASHSSKILPRLLWLVNLEVGFFYVPENIIRWDRQILLIFTLKSVSGVRLFTTVMKSAVEAWCGGGIPLIPALRRQRLVDPLILRKAWCK
F023	[0685,0688]	004	VSNY
F024	[0690,0695]	006	DRERAC
F025	[0697,0741]	045	DFSVSKKKKKNQKTSQQCAPWSMALLFTTLVVADNTGPFFLPGIC
F026	[0743,0748]	006	PLKSYS
F027	[0750,0750]	001	P
F028	[0752,0755]	004	YFIV
F029	[0757,0765]	009	SKDGGGIHL
F030	[0767,0767]	001	F
F031	[0769,0772]	004	RSGC
F032	[0774,0777]	004	EGQI
F033	[0779,0794]	016	FDSEASLVGISSRAPQ
F034	[0796,0801]	006	DFVSNK
F035	[0803,0804]	002	IV
F036	[0806,0806]	001	M
F037	[0808,0818]	011	VCRDYNGLCVP
F038	[0820,0824]	005	GCSKS
F039	[0826,0833]	008	AVVAHAFI
F040	[0835,0890]	056	SQHLGGRGRWISEFKASLVYKVSSRTTRAIQRNPVSKKKKKGCSKEWKTKQDSTVN
F041	[0892,0899]	008	SSLSVAIR
F042	[0901,0903]	003	FCW
F043	[0905,0909]	005	NKIFC
F044	[0912,0913]	002	TS
F045	[0915,0925]	011	YLFSPANISQV
F046	[0927,0933]	007	RLLKSLN
F047	[0935,0936]	002	SP
F048	[0938,0943]	006	GGMVLV
F049	[0945,0954]	010	YKTLNPLKAE
F050	[0956,0986]	031	IMHLCVCPVPEERDHHARQPDSLAVPYSGSL
F051	[0988,0990]	003	IRY

F052	[0993,1027]	035	NAISVSLQNTFHHGHLSKFPLEQRHQANVHVPAPG
F053	[1029,1037]	009	ESPSHVYLG
F054	[1039,1053]	015	WYRRRTALQDPYPGL
F055	[1055,1060]	006	AQVCGR
F056	[1062,1096]	035	VPGRSVRTPGSVRTASDPPSFCLVCKAFQTLVSHP
F057	[1098,1123]	026	VSCCIVWRRSNNGSLSLDGLWRVLVH
F058	[1125,1140]	016	RKILGHVCGGWEAAVC
F059	[1142,1154]	013	PGQPQEPSLRGLV
F060	[1156,1160]	005	LEYAI
F061	[1162,1176]	015	FIEQSVSTLPNASTI
F062	[1179,1179]	001	G
F063	[1181,1187]	007	CCGNHQP
F064	[1189,1218]	030	NGFCRYFIIVYTSKFILVVACVSQHRPSKP
F065	[1220,1244]	025	LLRRGVAPSPSTWLRMGYSSKDVSV
F066	[1246,1248]	003	VNE
F067	[1250,1273]	024	PDNRAWIVYLVLGRVWVGSSVSAF
F068	[1275,1286]	012	ELRGNWRVKPDH
F069	[1288,1348]	061	DSREKTKQAVGKQLFIYKHNLKYNSWTCGEWEKGDDD GLEEEVGFFCLFWVLSCVCLTHWK
F070	[1350,1389]	040	YQSTQETCTERTGFLLRWLLGCSALGTLRSGETGIGD SDR
F071	[1391,1412]	022	RQVIPDVDAVTCTSLLIKTKWW
F072	[1414,1417]	004	ATKG
F073	[1419,1421]	003	VRG
F074	[1423,1425]	003	PSS
F075	[1427,1429]	003	RVH
F076	[1431,1459]	029	KLLKLYVYGCVCARAHARSMCSVPAEIKE
F077	[1461,1488]	028	GPQELKLQTVVGFHVIESSCCSHRSGFS
F078	[1490,1519]	030	QHPHSGSQPSVTLNSGRSNPPRLASSCRLK
F079	[1521,1522]	002	HV
F080	[1524,1524]	001	S
F081	[1526,1600]	075	FNFLSLSCPELPEWNFDGSSTFQSEGSNSDMYLHPVA MFRDPFRKDPNKLVLCEVFKYNRKPAGKYGMGVAGCK S
F082	[1602,1611]	010	NSREVTFSMN
F083	[1613,1616]	004	EAAL
F084	[1618,1628]	011	ERRDGRVAILP
F085	[1630,1658]	029	TFLLGTVCSILSSMVPFIVCIVLALLSVC
F086	[1660,1665]	006	RATSTC
F087	[1667,1675]	009	SKSLCLKVL
F088	[1677,1753]	077	FLNLNTRSTTVLPAFFSSELCVLYVESMRRRACLAGC VDVNGQRWSWLSPACLCELWRWNSGCQARVATPLPTE PSQ
F089	[1755,1770]	016	SSLIRAHPEVIGRSHE
F090	[1772,1962]	191	PCATITWEYCTLTIGYYFMPDSLLSLNTHKYEHRDFG MCIYPACTCVEFSLHCAIHLRFQIALNLGKSHFCEIS SSNASKAWWPWAFSASVSKGSSIIGKRCALCLSCHLG VPPNTLSWGFIFLFVKMKVFLVCFFLFFFFQDRVSLC SPGCPGTHSVDQAGLELRNLPASASQVLGSKVCATMP CQNEGC

F091	[1964,1973]	010	YLRLRWLFFF
F092	[1975,2005]	031	LGNCFQLYSYIIICLYVCLPIYFCTSHNCKT
F093	[2007,2013]	007	HLNSPGM
F094	[2015,2015]	001	T
F095	[2017,2022]	006	WTNYSQ
F096	[2024,2039]	016	QIWPSVSETLGNTSDN
F097	[2041,2065]	025	KQLSCESENECLACGVGMVASMQIG
F098	[2067,2074]	008	PLARIPFP
F099	[2076,2087]	012	CCVADFNYKKVY
F100	[2089,2109]	021	PFPANGQLSLLPFSLVIKHGG
F101	[2111,2127]	017	AWVSLSCDQHWSCVRGL
F102	[2129,2129]	001	S
F103	[2131,2218]	088	WHVDSLFLETNLRHICKRIMDMVSNQHPWFGMEQEYT LMGTDGHPFGWPSNGFPGPQGTSHWVKGETSSPKLLL SRKSPSPEIGAILK
F104	[2220,2244]	025	ENGDQQQNLNSRPTLHPSHPEVVRI
F105	[2246,2250]	005	SDREW
F106	[2252,2260]	009	DGSVVTHQA
F107	[2262,2276]	015	QPESPPGTHLVEGKK
F108	[2278,2283]	006	LPQVSL
F109	[2285,2317]	033	PYCKYASTHKTNEKPLKKSKQGLYRGRGKEGMT
F110	[2319,2335]	017	ILPPAAEGRTSDSGKQV
F111	[2337,2349]	013	ALLVLGFGVSWIP
F112	[2351,2405]	055	LTLPCCVLNLLQARITAVWEQTRPTAGTSWRLTTGPA CMLESRLRGQMRRLCLPR
F113	[2407,2420]	014	MVPIFFLLSEDLGR
F114	[2422,2455]	034	AHGDFGLAGVDHKVGQSQRVDLKGQLFLSSGNSR
F115	[2457,2469]	013	DPVRGSEWEIIFG
F116	[2471,2483]	013	PVLSCIGCAKTLG
F117	[2486,2516]	031	QPLTPSPFQGTGMVQAAIPTSAPRPCGRRMV
F118	[2518,2562]	045	SKYLPLEPSVFSWGRRALGTHKAVRTCLALHICSKPV SLCLLERR
F119	[2564,2587]	024	GKYFRNRIDRKAFELSKNTSKWET
F120	[2589,2596]	008	FLLVGRGE
F121	[2598,2605]	008	LGVFPSSG
F122	[2607,2652]	046	FALHVKDWPEGDSAFFLLGFMPAPILVDGPSSSLFPL GALRRPLTN
F123	[2654,2675]	022	ARGTSTTFAPTIPRGAWTTPGV
F124	[2677,2726]	050	LDSTKPPTSTTFLPVLPTAVPVSAFPGLSARRRRATL KTVGLLPIVTPMR
F125	[2728,2786]	059	QKPSSARVSSTKQATNPSNTRTKWTRLPVIPLPALPF PSCPHCNSKGWNTKVFLFLVPS
F126	[2788,2794]	007	SCFCWSE
F127	[2796,2848]	053	RGQVLNLYTPTLSFLSSFLVGSGRGEGKGNPLLHLIG YACPVGIAVTKRVYLW
F128	[2850,2858]	009	KRTFFFSSG
F129	[2860,2880]	021	LKGQAQRLRLTFPLLVESCYF
F130	[2882,2892]	011	RGNQLSVPNGS
F131	[2894,2896]	003	VRS

F132	[2898,2945]	048	RLVSCAVLPWLGGGGIRPPLCEHSSPRHLMDGPTVKE EKSWHFLVLRS
F133	[2947,2950]	004	HKAE
F134	[2952,2955]	004	YFYI
F135	[2957,2975]	019	MLKTKKLYIYGCVDVCLSN
F136	[2977,2999]	023	ENHPIHWVPSLSDEGLGLEVRLP
F137	[3001,3066]	066	GRGEDAVPGKLVILGSQLHYCLGFPCPLCRSRCWTGS QWDATACHHLSPGLGLGDAYTYSTHELEV
F138	[3068,3072]	005	VGWST
F139	[3074,3101]	028	TLLLMGGWVGVYWGYFFGGISMSLKRAF
F140	[3103,3153]	051	YIKFFKSKTSLDFNQICRVSNFTELPVCFNVSLHLAL RGIKDRPRVKTLVS
F141	[3155,3212]	058	CHLCQQTVTFLLKKPIVFFFFYSKHTPTSIPACCPS VFWLFVSAAGQLWFLSCHDDF
F142	[3214,3222]	009	LPCIVCSVR
F143	[3224,3229]	006	LTVNRL
F144	[3231,3239]	009	LPGSAYKST
F145	[3241,3242]	002	HL
F146	[3244,3246]	003	DFL
F147	[3248,3263]	016	LVSLWFPKKKKKPQKL

Marco de lectura -1:

Secuencia:

LIFEVFFFFL GTTKKQVRGN LINVRLIYKR CLAVTVCLQ* VI*PNILYMA
IRSHHGKRET TVGPLPTQTT RKLKGNRLGW RWGCVYYKRK KKRLLAFSEG
K*QSAGRGDT RRQVF*L*AC P*FP*EPSGG RH*NKQAIL* S*KPYKSD*N
LNLFCF*KT* YIKRPALVTC *SHQKNNPSK PPPTHPSVTV FKLTSQLILL
TRVWSKYTHP LNLSLGTGGG KQWHPTGYLS NICSCRVGRE TLSSNEAETP
R*PTFPVLHP HPYLKGASLL SQAPHHSNLA PSE*DGSLN* KDIHPHIHIY
ITFLFLTFKY KNTTLLCVMN GGPRNANFFL PSQ*GHPSGD AVSCVHTEGD
GCPLPQAKEA QRKKPTFNSS PNFHLEQKAG FPFRNNSSLP TVEMSISAVG
PALSTILKKK KMSSFTISTP AL*QLCLPDM HTR*DEAVGY PSPPPSRSLL
ES*IGKKGLV CRD*EPDPSI LTNKSKINWA RGIKRPWYSI LLSYSGDNWE
REELGEGSLE V*ST*FLYWK GSSPVSLRRH VRTMASVTA* GSQLAEGRRS
SK*PFFSWPT VRGMRILAPR LATPAEKSLM LEVSWNPVRR RALSRPPLGS
*ARMWYWCLL LSLSMASSMH LVETVKMRVH RQGWERA*IP EERRHCLPQA
SL*HAVQIIH WMERPPITRL FPPVRIKFPI CLYFYLVRML FCQFYS*SIY
PIASPTGTN* QA*NKYAELG MYVQPCEYPK PFYPMRIQTA PKEGTYFRPF
SSRMALVLKL VWQPAPFQFP GMGLGSKVAI TPKSSHTRCK IKRAIQR*SP
IRIPSQGPIW NSH*REKVDL *DPPSVIAPL CDPPLLARSP HVPTYPGLQR
GGKRWAPFTW AGITSAFVPV ILTPAYKQAR **ASTMSLP* ALSAPTPQ*Y
GPEGGSRHSR EESVRESRKP QSPKLGGPKP AFLSH*SCLQ LQAGEFRSFL
LCLGLGRGPA CFF*VAFH*F CVYLHIYSMV RG*LEGVISC LLPNGSQEEI
QVVRPGG*PL SHLTTLCHFK F*PPLDVRDA RSVYC*DSAA GLHFLISGLH
LSLGKGISWT VTT*GRKFHP LPSGTYLGVQ GSHWKANQMG GRLFP*EYIP

APFQTRGAGC SPCPLSVYRC ASSWSLEIKN QHAIRTRALS HSSSAGHRRD
*PRPNHHVLS PRKMEEVIIV HLQEMANRLF YN*SQPRSIM GMESEQVVTL
SACWPPSQHH TPGTHSQIHR TTASSCQMYS LVSQTLKARS VIENNLSIRF
TCQVSLSAKF YSYDWYKSR* VDRHTDI*LY MSIAENNSQA RKKITI*V*G
INNLHFGRAW WRTPLIPALG RQRQADF*VQ GQPGLQSEFQ DSQGYTEKLC
LGKKKTKKNK PKKPSFSQIR K*NPKRGC*V AHPGDRTGTE HTFYQ*CYCL
LKQKH*RPRA TKPYWHC*KI FHRSETSPGS KLSENGDG*H SAN*TPRMCR
QGKCTSRSLD AHTCEYSDST SCLA*NSNR* LTCSTPK*LW HTVIHVIFQ*
LRDGLLSEKT TETAQWVKVL PLEPGNLSST SRAHINRQET TNSNAAR*RP
RTQQGMLSDA CSPHTAHTIQ KKKKQVEQW* I*YLNSKTTE LLNTGF*ISR
*RLPVSKQTE EPTLYKQ*KE PWKKGLSTLF PTGKFRVE*P PCHPYVLRER
LLNSLRMSPP *SFRIYSQPH PSHTCLQVSG YT*KLHIAPA CWGLCGRGLE
TWQQDGGTCR CWSLQTERY* SHQSSTQVTL GKTKIEN*IN FKRVI*ACRK
KPDEEGWISR N*ELQMVVSH YVGVVN*TQI GESNKSSQSH ESPQLSVTSV
PAVLTL*FLL ALSTWSARAR AHIHTHIHTV LKVFSAHAKK TVSLLLILSL
LTTTLSL*GV RCM*LHLHQG *PDVTYRCHL SQFLLT*ESP EHCIPRAT*A
ENQSSLCKSP VYSGITSSVS DTHRTKPKTN KKTPPPPLGH HHLPSPIPHR
SNCCTSSYAC I*TVASPPLA WSFPYCLSGR V*LSSYL*VL RKQRLKNLPT
LCQVPSIQSM LCYLVTRSLK QKHPWKSNPS *AR*MVRGPP LS*AAMAYLV
YAEKHRLQLK *T*KYIQL*S SGKNHFMVGG CHNTSLIKWW KH*EGLRPTV
L*TR*HIPVT PVLSN*VPGV GQVSTQQPPI PHKRDPVFFF NVPAHARVHL
KKGFHCCCAS RLCSSLLTGD *LRSEKPCKP NRRKVDPRLC VHSQACAHSA
PALTFHTLGL TVQGTGLAAQ SFSGTINPDI HGLDFLTLGQ GHVHLLDAFV
QVGTC*GGHG GRCSGERQKS HFINIEFKGI HCRGRQGNQA GVRGDLAPLG
LDTHKGALFT LLSRGLKFYI RQGPCPLRGT S*GILITVKL EKC*QERTNI
KTFINRISYS TNRTTLLPQK DLTN*LLSLA LSSTLWNSLF FFFWRQGFSE
WPWLSWSSLC RPGWP*TQKS TCLCLPSAGI K*RHVPPPLS SWNNLKGHTT
HCNPYIPTFR LSTYLRQSLI VEPWNLCRPG *PQNQIRSAP LSILNARIKG
VCHHHL*ITQ *NTRASCKTL KANIFLGERK DLYYLPPLRW *KVKPYSKEH
TADWFFGFFF FFLRQRNLNK PSLCPSNYLL IIYTKLSSKS EDLPVSAS*E
LGLKVCPLHT RPQLLTSLLW *KALLQRQIS M*KLTVFDDP TG*YFLVRRK
IPLLSLQATG VGARSSMNVR LQKTSLKTQE EMPPSLPNLP G*LEREHIVL
LQ*LGQLSEV QWQSFYGQPS MFAQVKTTAS PSKSLTLPPG NR*ASAVKSD
AEPKPLPTPL RGPDCNSRWL QFTPLISFPP LPCPPPPTHT HPALMNC*GN
LSSSSGPGSL RPAGCQQPSV HR*HQLVSL* CKVEWVLKIL SSFCGLPDAP
GVLRPDFYSP QPMRIKCTGV VLSRPPLFRA VFMPLLVLDF SLV*ATELFG
RGRWSGGPRP FGGGGAGIRR VRFNLNPRLL PGVHRVGNEA *SIRRGL*GP
RISIFYVFNG WFL*VFAAGG GSPLPAPGGV GAIHFESSLP TKMSGKSVPR
PSGPRRSQGL SQGAIPRRG* RPGGESGATA GGTARRCCLR LARPLHCGAR
RPLRGSGSPL FGHMVKA*DT ALGAGEWCHQ RLGPPSSTRP PTA*RRPPNA
PPGREDQGAC AHLRQEPSPA GTTGKPPSQR EPQPTAPASR GGASGRKYRT
DQNNPQPRPS RSLAHSAS*E HQAEPARAAR CKHAGGTSAA SRSVQQLTGA
GK*SATPQPG RPYIPGPSVR LPERWPAG*W MGEQVRRARR RGDG*ACCSD
TLLYSHSPLC RVAGC

Las longitudes exactas de los fragmentos son:

Fragmento	Posición	Longitud	Secuencia
F001	[0000,0038]	39	LIFEVFFFFLGTTKKQVRGNLINVRLIYKRCLAVTVCLQ
F002	[0040,0041]	02	VI
F003	[0043,0100]	58	PNILYMAIRSHHGKRETTVGPLPTQTTRKLKGNRLGWRWGCVYYKRKKKRLLAFSEGK
F004	[0102,0114]	13	QSAGRGDTRRQVF
F005	[0116,0116]	01	L
F006	[0118,0120]	03	ACP
F007	[0122,0123]	02	FP
F008	[0125,0131]	07	EPSGGRH
F009	[0133,0138]	06	NKQAIL
F010	[0140,0140]	01	S
F011	[0142,0147]	06	KPYKSD
F012	[0149,0155]	07	NLNLFCF
F013	[0157,0158]	02	KT
F014	[0160,0169]	10	YIKRPALVTC
F015	[0171,0250]	80	SHQKNNPSKPPPTHPSVTVFKLTSQLILLTRVWSKYTHPLNLSLGTGGGKQWHPTGYLSNICSCRVGRETLSSNEAETPR
F016	[0252,0282]	31	PTFPVLHPHPYLKGASLLSQAPHHSNLAPSE
F017	[0284,0288]	05	DGSLN
F018	[0290,0332]	43	KDIHPHIHIYITFLFLTFKYKNTTLLCVMNGGPRNANFFLPSQ
F019	[0334,0421]	88	GHPSGDAVSCVHTEGDGCPLPQAKEAQRKKPTFNSSPNFHLEQKAGFPFRNNSSLPTVEMSISAVGPALSTILKKKKMSSFTISTPAL
F020	[0423,0432]	10	QLCLPDMHTR
F021	[0434,0451]	18	DEAVGYPSPPPSRSLLES
F022	[0453,0462]	10	IGKKGLVCRD
F023	[0464,0510]	47	EPDPSILTNKSKINWARGIKRPWYSILLSYSGDNWEREELGEGSLEV
F024	[0512,0513]	02	ST
F025	[0515,0538]	24	FLYWKGSSPVSLRRHVRTMASVTA
F026	[0540,0551]	12	GSQLAEGRRSSK
F027	[0553,0599]	47	PFFSWPTVRGMRILAPRLATPAEKSLMLEVSWNPVRRRALSRPPLGS
F028	[0601,0636]	36	ARMWYWCLLLSLSMASSMHLVETVKMRVHRQGWERA
F029	[0638,0651]	14	IPEERRHCLPQASL
F030	[0653,0695]	43	HAVQIIHWMERPPITRLFPPVRIKFPICLYFYLVRMLFCQFYS
F031	[0697,0708]	12	SIYPIASPTGTN
F032	[0710,0711]	02	QA
F033	[0713,0796]	84	NKYAELGMYVQPCEYPKPFYPMRIQTAPKEGTYFRPFSSRMALVLKLVWQPAPFQFPGMGLGSKVAITPKSSHTRCKIKRAIQR
F034	[0798,0812]	15	SPIRIPSQGPIWNSH
F035	[0814,0819]	06	REKVDL
F036	[0821,0879]	59	DPPSVIAPLCDPPLLARSPHVPTYPGLQRGGKRWAPFTWAGITSAFVPVILTPAYKQAR

F037	[0882,0888]	07	ASTMSLP
F038	[0890,0897]	08	ALSAPTPQ
F039	[0899,0934]	36	YGPEGGSRHSREESVRESRKPQSPKLGGPKPAFLSH
F040	[0936,0962]	27	SCLQLQAGEFRSFLLCLGLGRGPACFF
F041	[0964,0967]	04	VAFH
F042	[0969,0981]	13	FCVYLHIYSMVRG
F043	[0983,1006]	24	LEGVISCLLPNGSQEEIQVVRPGG
F044	[1008,1020]	13	PLSHLTTLCHFKF
F045	[1022,1034]	13	PPLDVRDARSVYC
F046	[1036,1062]	27	DSAAGLHFLISGLHLSLGKGISWTVTT
F047	[1064,1094]	31	GRKFHPLPSGTYLGVQGSHWKANQMGGRLFP
F048	[1096,1149]	54	EYIPAPFQTRGAGCSPCPLSVYRCASSWSLEIKNQHA IRTRALSHSSSAGHRRD
F049	[1151,1181]	31	PRPNHHVLSPRKMEEVIIVHLQEMANRLFYN
F050	[1183,1268]	86	SQPRSIMGMESEQVVTLSACWPPSQHHTPGTHSQIHR TTASSCQMYSLVSQTLKARSVIENNLSIRFTCQVSLS AKFYSYDWYKSR
F051	[1270,1276]	07	VDRHTDI
F052	[1278,1295]	18	LYMSIAENNSQARKKITI
F053	[1297,1297]	01	V
F054	[1299,1326]	28	GINNLHFGRAWWRTPLIPALGRQRQADF
F055	[1328,1370]	43	VQGQPGLQSEFQDSQGYTEKLCLGKKKTKKNKPKKPS FSQIRK
F056	[1372,1377]	06	NPKRGC
F057	[1379,1394]	16	VAHPGDRTGTEHTFYQ
F058	[1396,1404]	09	CYCLLKQKH
F059	[1406,1416]	11	RPRATKPYWHC
F060	[1418,1437]	20	KIFHRSETSPGSKLSENGDG
F061	[1439,1442]	04	HSAN
F062	[1444,1473]	30	TPRMCRQGKCTSRSLDAHTCEYSDSTSCLA
F063	[1475,1478]	04	NSNR
F064	[1480,1486]	07	LTCSTPK
F065	[1488,1498]	11	LWHTVIHVIFQ
F066	[1500,1546]	47	LRDGLLSEKTTETAQWVKVLPLEPGNLSSTSRAHINR QETTNSNAAR
F067	[1548,1578]	31	RPRTQQGMLSDACSPHTAHTIQKKKKQVEQW
F068	[1580,1580]	01	I
F069	[1582,1595]	14	YLNSKTTELLNTGF
F070	[1597,1599]	03	ISR
F071	[1601,1616]	16	RLPVSKQTEEPTLYKQ
F072	[1618,1637]	20	KEPWKKGLSTLFPTGKFRVE
F073	[1639,1659]	21	PPCHPYVLRERLLNSLRMSPP
F074	[1661,1681]	21	SFRIYSQPHPSHTCLQVSGYT
F075	[1683,1718]	36	KLHIAPACWGLCGRGLETWQQDGGTCRCWSLQTERY
F076	[1720,1736]	17	SHQSSTQVTLGKTKIEN
F077	[1738,1744]	07	INFKRVI
F078	[1746,1760]	15	ACRKKPDEEGWISRN
F079	[1762,1775]	14	ELQMVVSHYVGVVN
F080	[1777,1805]	29	TQIGESNKSSQSHESPQLSVTSVPAVLTL

F081	[1807,1856]	50	FLLALSTWSARARAHIHTHIHTVLKVFSAHAKKTVSLLLILSLLTTTLSL
F082	[1858,1862]	05	GVRCM
F083	[1864,1869]	06	LHLHQG
F084	[1871,1885]	15	PDVTYRCHLSQFLLT
F085	[1887,1897]	11	ESPEHCIPRAT
F086	[1899,1960]	62	AENQSSLCKSPVYSGITSSVSDTHRTKPKTNKKTPPPPLGHHHLPSPIPHRSNCCTSSYACI
F087	[1962,1980]	19	TVASPPLAWSFPYCLSGRV
F088	[1982,1986]	05	LSSYL
F089	[1988,2029]	42	VLRKQRLKNLPTLCQVPSIQSMLCYLVTRSLKQKHPWKSNPS
F090	[2031,2032]	02	AR
F091	[2034,2041]	08	MVRGPPLS
F092	[2043,2059]	17	AAMAYLVYAEKHRLQLK
F093	[2061,2061]	01	T
F094	[2063,2067]	05	KYIQL
F095	[2069,2091]	23	SSGKNHFMVGGCHNTSLIKWWKH
F096	[2093,2100]	08	EGLRPTVL
F097	[2102,2103]	02	TR
F098	[2105,2114]	10	HIPVTPVLSN
F099	[2116,2169]	54	VPGVGQVSTQQPPIPHKRDPVFFFNVPAHARVHLKKGFHCCCASRLCSSLLTGD
F100	[2171,2254]	84	LRSEKPCKPNRRKVDPRLCVHSQACAHSAPALTFHTLGLTVQGTGLAAQSFSGTINPDIHGLDFLTLGQGHVHLLDAFVQVGTC
F101	[2256,2330]	75	GGHGGRCSGERQKSHFINIEFKGIHCRGRQGNQAGVRGDLAPLGLDTHKGALFTLLSRGLKFYIRQGPCPLRGTS
F102	[2332,2342]	11	GILITVKLEKC
F103	[2344,2373]	30	QERTNIKTFINRISYSTNRTTLLPQKDLTN
F104	[2375,2414]	40	LLSLALSSTLWNSLFFFFWRQGFSEWPWLSWSSLCRPGWP
F105	[2416,2430]	15	TQKSTCLCLPSAGIK
F106	[2432,2479]	48	RHVPPPLSSWNNLKGHTTHCNPYIPTFRLSTYLRQSLIVEPWNLCRPG
F107	[2481,2505]	25	PQNQIRSAPLSILNARIKGVCHHHL
F108	[2507,2509]	03	ITQ
F109	[2511,2539]	29	NTRASCKTLKANIFLGERKDLYYLPPLRW
F110	[2541,2597]	57	KVKPYSKEHTADWFFGFFFFFLRQRNLNKPSLCPSNYLLIIYTKLSSKSEDLPVSAS
F111	[2599,2619]	21	ELGLKVCPLHTRPQLLTSLLW
F112	[2621,2630]	10	KALLQRQISM
F113	[2632,2641]	10	KLTVFDDPTG
F114	[2643,2690]	48	YFLVRRKIPLLSLQATGVGARSSMNVRLQKTSLKTQEEMPPSLPNLPG
F115	[2692,2701]	10	LEREHIVLLQ
F116	[2703,2741]	39	LGQLSEVQWQSFYGQPSMFAQVKTTASPSKSLTLPPGNR
F117	[2743,2796]	54	ASAVKSDAEPKPLPTPLRGPDCNSRWLQFTPLISFPPLPCPPPPTHTHPALMNC

F118	[2798,2821]	24	GNLSSSSGPGSLRPAGCQQPSVHR
F119	[2823,2828]	06	HQLVSL
F120	[2830,2892]	63	CKVEWVLKILSSFCGLPDAPGVLRPDFYSPQPMRIKC TGVVLSRPPLFRAVFMPLLVLDFSLV
F121	[2894,2939]	46	ATELFGRGRWSGGPRPFGGGGAGIRRVRFNLNPRLLP GVHRVGNEA
F122	[2941,2946]	06	SIRRGL
F123	[2948,2962]	15	GPRISIFYVFNGWFL
F124	[2964,3018]	55	VFAAGGGSPLPAPGGVGAIHFESSLPTKMSGKSVPRP SGPRRSQGLSQGAIPRRG
F125	[3020,3066]	47	RPGGESGATAGGTARRCCLRLARPLHCGARRPLRGSG SPLFGHMVKA
F126	[3068,3092]	25	DTALGAGEWCHQRLGPPSSTRPPTA
F127	[3094,3167]	74	RRPPNAPPGREDQGACAHLRQEPSPAGTTGKPPSQRE PQPTAPASRGGASGRKYRTDQNNPQPRPSRSLAHSAS
F128	[3169,3201]	33	EHQAEPARAARCKHAGGTSAASRSVQQLTGAGK
F129	[3203,3227]	25	SATPQPGRPYIPGPSVRLPERWPAG
F130	[3229,3243]	15	WMGEQVRRARRRGDG
F131	[3245,3264]	20	ACCSDTLLYSHSPLCRVAGC

Marco de lectura -2:

Secuencia:

*FLRFFFFFW EPQRNKSEEI L*MLG*FISA AWQLQSVYSE LSNRTYYTWQ
LEVIMAREKP QLARCRHKQP EN*RATGWDG GGGVFTIKEK KKDYWLFQKE
SNSLLAEVTL GDKCFNSRPV LNSPKSQVEG DIETNRQFCK VRNPTNLIKI
*TCFAFKKLN ISKGPL**HA NPTKKITPVN PHPPTHQ*QC SS*PANSYF*
LVCGVSIRIP *T*AWGQVVA SSGIPLATCP TSAPAEWAGK P*AVMKLRPQ
DNQLSRYCIL TPTSREPHF* AKPLITQTWH PVNRMVLSIR KTYIHTSIYI
*LFCF*HLNI KILLCFVL*T EDQEMPTFFF LHSRAIHQVT R*AVFTQRGT
DAPSPKPRKH SARNQPSTPH LTSIWNRKLV SPLEITALYQ QWKCQSQPLG
LPFQLS*RKK KCPLSP*VHP LCDSYAYRTC IPDEMKQWVT LPLPPPAPY*
KAR*ERKGWC VEIKNLTPLF *PTKARLTGH EE*KDLGIPS F*VTVGTTGK
GKSWERDHWK SSPLSSCIGR VRRLFR*GDT CGRWLLSPHR GHNWQKADGL
QSSPSSPGRQ SGECGYWHRG WQHRQKSR*C WRFRGIQSDA GRCPGPPWDR
RRECGTGASC SVCQWPPQCT *WKQ*R*GSI DKDGSGHESQ KKEGTVSLRP
VFNMQCKLST GWKDPQSLAS SHQ*ELSFPF ACIFT*FECF SVNSIPKVFT
LSPLQQAQTD RLRTNMQS*A CTYSLVSTQS PSTP*EYRRL QRKVLTSDHS
PPAWPWC*SW YGSLHHSSSL EWAWGQRLLS PQSLRTPDAR *NGLSKDDLP
FGSPHRVLSG IPTREKKLTF KIHPL*LPHF VIHPC*PEVP MCLPTQVFRE
EEKDGHHLPG QA*PPHLSP* S*LQHTSRPG SEPPRCPCRR PCLLPHRSNT
GLKEVQDTAG KSQSGNPGNP KAQN*EGLNL LS*VTSPAFS CRRENLGHSF
FASASVEALL AFFEWLFISF VCTCIFTVWS EANLRESFLA FYQMGPRRRF
RLSGLVGNH* AISPLSVTLN SNHLWM*GMQ GRSTVKILLL VSIFSFQDCT
YLWGRGFPGQ *QLRGGSFTL YPVGRTLGSR EAIGRPTKWV AVCSHKSIFL
LHSKPGVLVA HHVHYPFTDV PQVGL*K*RI NMPSGLEPSH TAPVLVTGET

DPGLTTMFYH QGKWKK**LS ICRKWLIDFF IIKVSHAASW EWNPSKWSPY
LHAGHHPNTT RQALILRFTG QLLLVVRCIP *CLRH*RPDL LLRIICPLGS
HAR*V*VLSF TVMTGTKVDR *TDIQTYNYI *V*LKTIPKL EKK*PSESKV
LTTFILAGHG GAHL*SQHLG GRGRQISEFK ASLVYRVSSR TARATQRNSV
LEKKKQKKTN QKNLHFHK*E NETPREGVRW HTQVTGQAQS TPFTNNATAF
*NRSTEGPGP PSLTGIARRY FTEVRLPQVQ SYLKTEMDST VQTKLHACAG
RVNAHPEVSM LILVSIQTQQ AVWHKIVTDS *RAVLPSDCG TRSFM*SSND
FGMGSYQRRL LRRLSG*RCC HSSLAT*VPP PELT*TGRRQ PTPTLPVDVH
APSKACSPTH ALHIQHTQFR RKKSR*NSGR SSI*IQKLQN F*TQAFRSAG
RGCPSANRQK SQHYTNNKRN HGRKD*AHCS QQESSG*NSH PAIPTFLESG
FSIH*ECHLP RVSGFTASHT HPILACRFPV ILENFT*HQL VGVFAEGVSK
HGNRMEVHVA VGAFRLKGTR AIKVPLR*LW ARQR*KIKLT LNVLFEPAGR
SQTRRVGSPG IESYRWL*AT MWVLLTEPRS VRATRALNHM KAHNCL*LQF
LRSSLFDFCW H*AHGARVRA RTYTPIYIQF *KFLVHTLRR RSASYSSFRC
SPPLCLYEE* GACDCIYIRD NLTSPIAVTY PSFS*PESPQ STASQEPPEQ
KTSPLCASLL CTLVSLPVCQ THTGQNPKQT KKPHLLL*AI IISLLPFPTG
PTVVLQVMLV YKQLLPHRLL GLFPTVLVVG FDSPVTSEFS ESRD*RTYPH
SAKYQVYNPC SVIWSLVHSN RNILGRVTHP KPGRW*GGHP SPEQLWLTWS
MLRNTGYN*N KLRSIYNYKV AAKTILWLVV ATTLALLNGG SIRKG*DRLF
YKLDSIFQLH QSSQTRFLGL ARLAHSSLPS PTNVTQYFSS MYQHTPESI*
RKASIVAAPP DYAAAYLRVT D*GLKSLANQ TEGRWIRGCA YTPRRAHTPP
RHSPSTHLGS QSRVRVLQRS PSPVPSTQIY MAWTFSPWGR DMYICLMPLF
KWELAEVAMV EGVLERDRNR ILLISNSKGS TVGDGKGIRL ACVVISLLWD
WTHTKVHYSL CFQGV*SFIL DKDHAPSGGL VKGF**PLNL RNVSRREQIS
RRSLTEYLIL PTELPYCHRK T*LIDC*VLL CLPLFGTAFF FFFGDRVSLN
GPGCPGAHFV DQAGLELRNP PASASQVLGL NKGMCHHRSA LGTTLRDTQP
IVIPTYLHLD YLLI*DKVSL WSPGTYADQA SLRIKLDLPL SAS*TLELKV
YATTIFRLHN EILGLAVRL* RLTYSWEKER TCIICHH*GG KK*SHTPRST
LLTGFLVFFF FF*DREISTS PLSVLVITYS LFTPSFPQNQ RIYQSLPPES
WD*RYAPSTP GLNC*LHYCG EKPYSRDRFQ CEN*QYLTIP PDNIFWYVEK
SHF*VYKPQE SGQDLR*M*G YKKPASKHKR KCPPPSLISP DSWRGNILFS
SNDLGNFLKY SGKVSMGNRP CLPK*KQLPL PPKASPFPRG TDEPLLSSPM
QNQSLCLHHL EARIVILDGF NLHHSSAFLL CRAPRPPHTH IQH**TVRGT
VPPLALVP DQLGASSLVY IDSTNWCPCS AKWNGFLKF* VVSAGCQMHP
GSFALTFTHP SQ*ESNALGL YSLDLLFLEQ CSCLSSFSIS RWSKQRSFLG
EGDGVGDPDR SEGEVLE*DG CDLILTLDFS PEFTE*ATKP KVLEGDSEDR
ESPSSTSSMV GFFEYLRLGE DPRFPPPEEL GQSTLKAAFP LKCPESRCRD
PRARVDLKAS PRGPYPGEGR GRVARVGRPR EAQRAAAASA WRGLSTAEPA
GHSGAPALHC SVIW*RPRTR RWELGSGAIN A*DHHPQPDH PQRDDAPQMR
RQEERIKAPA PT*GKNPLPL GPPESPHLSV NPSQRRLPPG AAPPAASIEQ
IKTTRNPALP GAWLTARPRN TKQSRPGPHA ANTREARALH PAPYSS*LEL
GSRVRPHSPG GRTFLDPPCA YQSGGRPDDG WVNRSGERGG EEMGERAVQT
LCSTPILRSA GSLA

Las longitudes exactas de los fragmentos son:

Fragmento	Posición	Longitud	Secuencia
F001	[0001,0020]	020	FLRFFFFFWEPQRNKSEEIL
F002	[0022,0024]	003	MLG
F003	[0026,0071]	046	FISAAWQLQSVYSELSNRTYYTWQLEVIMAREKPQLARCRHKQPEN
F004	[0073,0149]	077	RATGWDGGGGVFTIKEKKKDYWLFQKESNSLLAEVTLGDKCFNSRPVLNSPKSQVEGDIETNRQFCKVRNPTNLIKI
F005	[0151,0165]	015	TCFAFKKLNISKGPL
F006	[0168,0186]	019	HANPTKKITPVNPHPPTHQ
F007	[0188,0191]	004	QCSS
F008	[0193,0198]	006	PANSYF
F009	[0200,0209]	010	LVCGVSIRIP
F010	[0211,0211]	001	T
F011	[0213,0240]	028	AWGQVVASSGIPLATCPTSAPAEWAGKP
F012	[0242,0268]	027	AVMKLRPQDNQLSRYCILTPTSREPHF
F013	[0270,0299]	030	AKPLITQTWHPVNRMVLSIRKTYIHTSIYI
F014	[0301,0304]	004	LFCF
F015	[0306,0317]	012	HLNIKILLCFVL
F016	[0319,0340]	022	TEDQEMPTFFFLHSRAIHQVTR
F017	[0342,0405]	064	AVFTQRGTDAPSPKPRKHSARNQPSTPHLTSIWNRKLVSPLEITALYQQWKCQSQPLGLPFQLS
F018	[0407,0415]	009	RKKKCPLSP
F019	[0417,0448]	032	VHPLCDSYAYRTCIPDEMKQWVTLPLPPPAPY
F020	[0450,0452]	003	KAR
F021	[0454,0469]	016	ERKGWCVEIKNLTPLF
F022	[0471,0481]	011	PTKARLTGHEE
F023	[0483,0490]	008	KDLGIPSF
F024	[0492,0525]	034	VTVGTTGKGKSWERDHWKSSPLSSCIGRVRRLFR
F025	[0527,0577]	051	GDTCGRWLLSPHRGHNWQKADGLQSSPSSPGRQSGECGYWHRGWQHRQKSR
F026	[0579,0619]	041	CWRFRGIQSDAGRCPGPPWDRRRECGTGASCSVCQWPPQCT
F027	[0621,0623]	003	WKQ
F028	[0625,0625]	001	R
F029	[0627,0672]	046	GSIDKDGSGHESQKKEGTVSLRPVFNMQCKLSTGWKDPQSLASSHQ
F030	[0674,0684]	011	ELSFPFACIFT
F031	[0686,0717]	032	FECFSVNSIPKVFTLSPLQQAQTDRLRTNMQS
F032	[0719,0733]	015	ACTYSLVSTQSPSTP
F033	[0735,0756]	022	EYRRLQRKVLTSDHSPPAWPWC
F034	[0758,0789]	032	SWYGSLHHSSSLEWAWGQRLLSPQSLRTPDAR
F035	[0791,0824]	034	NGLSKDDLPFGSPHRVLSGIPTREKKLTFKIHPL
F036	[0826,0834]	009	LPHFVIHPC
F037	[0836,0861]	026	PEVPMCLPTQVFREEEKDGHHLPGQA
F038	[0863,0868]	006	PPHLSP
F039	[0870,0870]	001	S
F040	[0872,0923]	052	LQHTSRPGSEPPRCPCRRPCLLPHRSNTGLKEVQDTAGKSQSGNPGNPKAQN
F041	[0925,0931]	007	EGLNLLS

F042	[0933,1008]	076	VTSPAFSCRRENLGHSFFASASVEALLAFFEWLFISF VCTCIFTVWSEANLRESFLAFYQMGPRRRFRLSGLVG NH
F043	[1010,1025]	016	AISPLSVTLNSNHLWM
F044	[1027,1059]	033	GMQGRSTVKILLLVSIFSFQDCTYLWGRGFPGQ
F045	[1061,1124]	064	QLRGGSFTLYPVGRTLGSREAIGRPTKWVAVCSHKSI FLLHSKPGVLVAHHVHYPFTDVPQVGL
F046	[1126,1126]	001	K
F047	[1128,1165]	038	RINMPSGLEPSHTAPVLVTGETDPGLTTMFYHQGKWK K
F048	[1168,1229]	062	LSICRKWLIDFFIIKVSHAASWEWNPSKWSPYLHAGH HPNTTRQALILRFTGQLLLVVRCIP
F049	[1231,1234]	004	CLRH
F050	[1236,1252]	017	RPDLLLRIICPLGSHAR
F051	[1254,1254]	001	V
F052	[1256,1269]	014	VLSFTVMTGTKVDR
F053	[1271,1279]	009	TDIQTYNYI
F054	[1281,1281]	001	V
F055	[1283,1292]	010	LKTIPKLEKK
F056	[1294,1313]	020	PSESKVLTTFILAGHGGAHL
F057	[1315,1367]	053	SQHLGGRGRQISEFKASLVYRVSSRTARATQRNSVLE KKKQKKTNQKNLHFHK
F058	[1369,1399]	031	ENETPREGVRWHTQVTGQAQSTPFTNNATAF
F059	[1401,1479]	079	NRSTEGPGPPSLTGIARRYFTEVRLPQVQSYLKTEMD STVQTKLHACAGRVNAHPEVSMLILVSIQTQQAVWHK IVTDS
F060	[1481,1494]	014	RAVLPSDCGTRSFM
F061	[1496,1515]	020	SSNDFGMGSYQRRLLRRLSG
F062	[1517,1525]	009	RCCHSSLAT
F063	[1527,1533]	007	VPPPELT
F064	[1535,1574]	040	TGRRQPTPTLPVDVHAPSKACSPTHALHIQHTQFRRK KSR
F065	[1576,1582]	007	NSGRSSI
F066	[1584,1590]	007	IQKLQNF
F067	[1592,1624]	033	TQAFRSAGRGCPSANRQKSQHYTNNKRNHGRKD
F068	[1626,1635]	010	AHCSQQESSG
F069	[1637,1653]	017	NSHPAIPTFLESGFSIH
F070	[1655,1685]	031	ECHLPRVSGFTASHTHPILACRFPVILENFT
F071	[1687,1726]	040	HQLVGVFAEGVSKHGNRMEVHVAVGAFRLKGTRAIKV PLR
F072	[1728,1733]	006	LWARQR
F073	[1735,1766]	032	KIKLTLNVLFEPAGRSQTRRVGSPGIESYRWL
F074	[1768,1795]	028	ATMWVLLTEPRSVRATRALNHMKAHNCL
F075	[1797,1810]	014	LQFLRSSLFDFCWH
F076	[1812,1829]	018	AHGARVRARTYTPIYIQF
F077	[1831,1858]	028	KFLVHTLRRRSASYSSFRCSPPLCLYEE
F078	[1860,1883]	024	GACDCIYIRDNLTSPIAVTYPSFS
F079	[1885,1936]	052	PESPQSTASQEPPEQKTSPLCASLLCTLVSLPVCQTH TGQNPKQTKKPHLLL
F080	[1938,1993]	056	AIIISLLPFPTGPTVVLQVMLVYKQLLPHRLLGLFPT VLVVGFDSPVTSEFSESRD

F081	[1995,2034]	040	RTYPHSAKYQVYNPCSVIWSLVHSNRNILGRVTHPKP GRW
F082	[2036,2057]	022	GGHPSPEQLWLTWSMLRNTGYN
F083	[2059,2094]	036	NKLRSIYNYKVAAKTILWLVVATTLALLNGGSIRKG
F084	[2096,2148]	053	DRLFYKLDSIFQLHQSSQTRFLGLARLAHSSLPSPTN VTQYFSSMYQHTPESI
F085	[2150,2170]	021	RKASIVAAPPDYAAAYLRVTD
F086	[2172,2314]	143	GLKSLANQTEGRWIRGCAYTPRRAHTPPRHSPSTHLG SQSRVRVLQRSPSPVPSTQIYMAWTFSPWGRDMYICL MPLFKWELAEVAMVEGVLERDRNRILLISNSKGSTVG DGKGIRLACVVISLLWDWTHTKVHYSLCFQGV
F087	[2316,2333]	018	SFILDKDHAPSGGLVKGF
F088	[2336,2370]	035	PLNLRNVSRREQISRRSLTEYLILPTELPYCHRKT
F089	[2372,2375]	004	LIDC
F090	[2377,2463]	087	VLLCLPLFGTAFFFFFGDRVSLNGPGCPGAHFVDQAG LELRNPPASASQVLGLNKGMCHHRSALGTTLRDTQPI VIPTYLHLDYLLI
F091	[2465,2492]	028	DKVSLWSPGTYADQASLRIKLDLPLSAS
F092	[2494,2518]	025	TLELKVYATTIFRLHNEILGLAVRL
F093	[2520,2536]	017	RLTYSWEKERTCIICHH
F094	[2538,2541]	004	GGKK
F095	[2543,2561]	019	SHTPRSTLLTGFLVFFFFF
F096	[2563,2601]	039	DREISTSPLSVLVITYSLFTPSFPQNQRIYQSLPPES WD
F097	[2603,2613]	011	RYAPSTPGLNC
F098	[2615,2632]	018	LHYCGEKPYSRDRFQCEN
F099	[2634,2652]	019	QYLTIPPDNIFWYVEKSHF
F100	[2654,2665]	012	VYKPQESGQDLR
F101	[2667,2667]	001	M
F102	[2669,2723]	055	GYKKPASKHKRKCPPPSLISPDSWRGNILFSSNDLGN FLKYSGKVSMGNRPCLPK
F103	[2725,2792]	068	KQLPLPPKASPFPRGTDEPLLSSPMQNQSLCLHHLEA RIVILDGFNLHHSSAFLLCRAPRPPHTHIQH
F104	[2795,2799]	005	TVRGT
F105	[2801,2808]	008	VPPLALVP
F106	[2810,2838]	029	DQLGASSLVYIDSTNWCPCSAKWNGFLKF
F107	[2840,2861]	022	VVSAGCQMHPGSFALTFTHPSQ
F108	[2863,2916]	054	ESNALGLYSLDLLFLEQCSCLSSFSISRWSKQRSFLG EGDGVGDPDRSEGEVLE
F109	[2918,2934]	017	DGCDLILTLDFSPEFTE
F110	[2936,3063]	128	ATKPKVLEGDSEDRESPSSTSSMVGFFEYLRLGEDPR FPPPEELGQSTLKAAFPLKCPESRCRDPRARVDLKAS PRGPYPGEGRGRVARVGRPREAQRAAAASAWRGLSTA EPAGHSGAPALHCSVIW
F111	[3065,3080]	016	RPRTRRWELGSGAINA
F112	[3082,3111]	030	DHHPQPDHPQRDDAPQMRRQEERIKAPAPT
F113	[3113,3195]	083	GKNPLPLGPPESPHLSVNPSQRRLPPGAAPPAASIEQ IKTTRNPALPGAWLTARPRNTKQSRPGPHAANTREAR ALHPAPYSS
F114	[3197,3263]	067	LELGSRVRPHSPGGRTFLDPPCAYQSGGRPDDGWVNR SGERGGEEMGERAVQTLCSTPILRSAGSLA

Marco de lectura -3:

Secuencia:

NF*GFFFFFG NHKETSQRKS YKC*VDL*AL PGSYSLFTVS YLTEHTIHGN
*KSSWQERNH SWPAADTNNQ KTEGQQAGME VGVCLL*KKK KKTIGFFRRK
VTVCWQR*H* ETSVLTLGLS LIPLRAKWRE TLKQTGNSVK LETLQI*LKS
KLVLLLKNLI YQKARFSDML IPPKK*PQ*T PTHPPISNSV QVDQPTHTSN
SCVE*VYASP KPKPGDRWWQ AVASHWLPVQ HLLLQSGQGN PKQ**S*DPK
ITNFPGTASS PLPQGSLTSK PSPSSLKLGT Q*IGWFSQLE RHTSTHPYIY
NFFVFNI*I* KYYSALCYER RTKKCQLFSS FTVGPSIR*R GELCSHRGGR
MPPPPSQGST AQETNLQLLT *LPFGTESWF PL*K*QLSTN SGNVNLSRWA
CPFNYPEEKK NVLFHHKYTR FVTAMPTGHA YPMR*SSGLP FPSPLPLPTR
KLDRKERVGV *RLRT*PLYS DQQKQD*LGT RNKKTLVFHP FELQWGQLGK
GRAGRGITGS LVHLVLVLEG FVACFVEETR ADDGFCHRIG VTIGRRPTVF
KVALLLLADS PGNADTGTAV GNTGRKVVDV GGFVESSQTP GVVQAPLGIV
GANVVLVPLA QFVNGLLNAP SGNSEDEGPS TRMGAGMNPR RKKALSPSGQ
SLTCSANYPL DGKTPNHSPL PTSKN*VSHL LVFLLSSNAF LSILFLKYLP
YRLSNRHKLT GLEQICRARH VRTAL*VPKA LLPHENTDGS KGRYLLQTIL
LPHGLGAEVG MAACTIPVPW NGLGVKGCYH PKVFAHPMQD KTGYPKMISH
SDPLTGSYLE FPLERKS*PL RSTLCDCPTL *STPASPKSP CAYLPRSSER
RKKMGTIYLG RHNLRICPRN LDSSIQAGPV VSLHDVPAVG LVCSHTAVIR
A*RRFKTQQG RVSQGIQETP KPKTRRA*TC FPESLVLPSA AGGRI*VIPS
LPRPR*RPCL LFLSGFSLVL CVLAYLQYGQ RLT*GSHFLP STKWVPGGDS
GCQAWWVTTE PSHHSLSL*I LTTSGCEGCK VGLLLRFCCW SPFSHFRIAP
ISGEGDFLDS NNLGEEVSPF TQWDVPWGPG KPLEGQPNGW PSVPIRVYSC
SIPNQGCWLL TMSIIRLQMC LKLVSRNKES TCHQD*SPLT QLQCWSQERL
TQA*PPCFIT KENGRSDNCP FAGNG**TFL *LKSATQHHG NGIRASGHPI
CMLATIPTPH ARHSFSDSQD NCF*LSDVFP SVSDTEGQIC Y*E*FVH*VH
MPGEFKC*VL QL*LVQK*IG RQTYRHIIIY EYS*KQFPS* KKNNHLSLRY
*QPSFWQGMV AHTFDPSTWE AEAGRFLSSR PAWSTE*VPG QPGLHRETLS
WKKKNKKKQT KKTFIFTNKK MKPQERVLGG TPR*QDRHRA HLLPIMLLPF
ETEALKAQGH QALLALLEDI SQK*DFPRFK AI*KRRWIAQ CKLNSTHVQA
G*MHIPKSRC SYL*VFRLNK LSGIK**PIV NVQYSQVIVA HGHSCDLPMT
SGWALIREDY *DGSVGKGVA TRAWQPEFHL QSSHKQAGDN QLQRCPLTST
HPARHALRRM LSTYSTHNSE EKKAGRTVVD LVFKFKNYRT FKHRLLDQQV
EVARQQTDRR ANTIQTIKGT MEERIEHTVP NRKVQGRIAT LPSLRS*RAA
SQFIENVTSL EFQDLQPATP IPYLPAGFRL YLKTSHSTSL LGSLRKGSRN
MATGWRYMSL LEPSD*KVLE PSKFHSGNSG QDKDRKLN*L *TCYLSLQEE
ARRGGLDLPE LRVTDGCEPL CGCC*LNPDR *EQQELSIT* KPTTVCNFSS
CGPHSLISAG TEHMERACAR AHTHPYTYSF KSF*CTR*ED GQPLTHPFVA
HHHFVFMRSE VHVTASTSGI T*RHLSLSPI PVSPDLRVPR ALHPKSHLSR
KPVLSVQVSC VLWYHFQCVR HTQDKTQNKQ KNPTSSSRPS SSPFSHSPQV
QLLYFKLCLY INSCFPTACL VFSLLS*WSG LTLQLPLSSQ KAETEEPTHT
LPSTKYTIHA LLSGHSFTQT ETSLEE*PIL SQVDGEGATP LLSSYGLLGL

C*ETQATTKI NLEVYTIIK* RQKPFYGWWL PQH*PY*MVE ALGRVETDCS
IN*IAYSSYT SPLKLGSWGW PG*HTAASHP PQT*PSIFLQ CTSTRQSPSK
ERLPLLLRLQ TMQQLTYG*L TKV*KALQTK QKEGGSEAVR TLPGVRTLRP
GTHLPHTWAH SPGYGSCSAV LLRYHQPRYT WLGLSHPGAG TCTFA*CLCS
SGNLLRWPWW KVFWRETEIA FY*YRIQRDP L*GTARESGW RAW*SRSSGT
GHTQRCIIHS AFKGFKVLY* TRTMPPQGD* LRDFNNR*T* EMLAGENKYQ
DVH*QNILFY QQNYLIATER LD*LTVESCF VFHSLEQPFF FFLETGFL*M
ALVVLELTL* TRLALNSEIH LPLPPKCWD* IKACATTAQL LEQP*GTHNP
L*SLHTYI*T IYLFETKSHC GALELMPTRL ASESN*ICPS QHPER*N*RC
MPPPSLDYTM KY*G*L*DFK G*HIPGRKKG PVLSATTKVV KSKAILQGAH
C*LVFWFFFF FFETEKSQQA LSLS**LLTH YLHQAFLKIR GSTSLCLLRA
GIKGMPPPHQ ASTADFITVV KSLTPETDFN VKINSI*RSH RIIFSGT*KN
PTSKFTSHRS RGKIFDECEA TKNQPQNTRG NAPLPP*SPR IAGEGTYCSP
PMTWATF*ST VAKFLWATVH VCPSENNCLS LQKPHPSPGE QMSLCCQVRC
RTKASAYTT* RPGL*F*MAS IYTTHQLSSS AVPPAPHTHT SSINELLGEP
EFLLWPWFPE TSWVPAA*CT *IAPTGVPVV QSGMGS*NSE *FLRVARCTR
GPSP*LLLTP ANENQMHWGC TL*TSSF*SS VHASPRSRFL AGLSNGAFWA
RAMEWGTQTV RRGRCWNKTG AI*S*PSTSP RSSQSRQRSL KY*KGTLRTE
NLHLLRLQWL VSLSICGWGR IPASRPRRSW GNPL*KQPSH *NVRKVGAAT
LGPA*ISRPL PGGHTPARVE AGWREWGDRG RHSAPLLPPL GAASPLRSPP
ATPGLRLSIV RSYGKGLGHG VGSWGVVPST LRTTILNQTT HSVTTPPKCA
ARKRGSRRLR PPKARTLSRW DHRKAPISA* TPANGACLPG RRLRPQV*NR
SKQPATPPFP ELGSQRVLGT PSRAGPGRTL QTRGRHERCI PLRTAADWSW
EVECDPTARA AVHSWTLRAL TRAVAGRMMD G*TGQESEAE RRWVSVLFRH
SALLPFSALQ GRWL

Las longitudes exactas de los fragmentos son:

Fragmento	Posición	Longitud	Secuencia
F001	[0000,0001]	002	NF
F002	[0003,0022]	020	GFFFFFGNHKETSQRKSYKC
F003	[0024,0026]	003	VDL
F004	[0028,0049]	022	ALPGSYSLFTVSYLTEHTIHGN
F005	[0051,0085]	035	KSSWQERNHSWPAADTNNQKTEGQQAGMEVGVCLL
F006	[0087,0106]	020	KKKKKTIGFFRRKVTVCWQR
F007	[0108,0108]	001	H
F008	[0110,0145]	036	ETSVLTLGLSLIPLRAKWRETLKQTGNSVKLETLQI
F009	[0147,0174]	028	LKSKLVLLLKNLIYQKARFSDMLIPPKK
F010	[0176,0177]	002	PQ
F011	[0179,0203]	025	TPTHPPISNSVQVDQPTHTSNSCVE
F012	[0205,0242]	038	VYASPKPKPGDRWWQAVASHWLPVQHLLLQSGQGNPKQ
F013	[0245,0245]	001	S
F014	[0247,0280]	034	DPKITNFPGTASSPLPQGSLTSKPSPSSLKLGTQ
F015	[0282,0306]	025	IGWFSQLERHTSTHPYIYNFFVFNI
F016	[0308,0308]	001	I

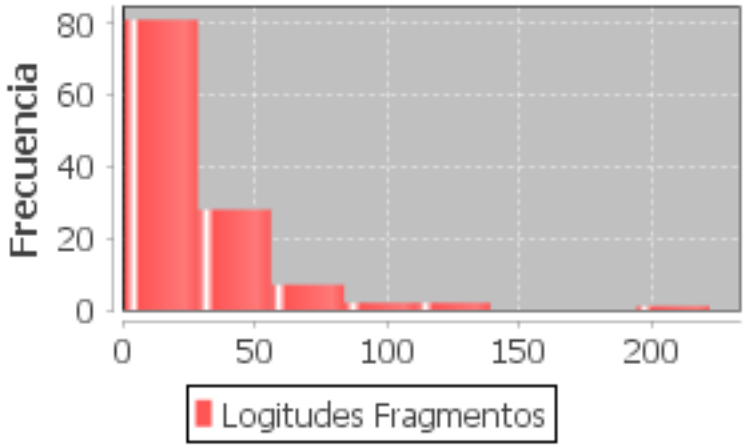
F017	[0310,0337]	028	KYYSALCYERRTKKCQLFSSFTVGPSIR
F018	[0339,0369]	031	RGELCSHRGGRMPPPPSQGSTAQETNLQLLT
F019	[0371,0381]	011	LPFGTESWFPL
F020	[0383,0383]	001	K
F021	[0385,0433]	049	QLSTNSGNVNLSRWACPFNYPEEKKNVLFHHKYTRFV TAMPTGHAYPMR
F022	[0435,0459]	025	SSGLPFPSPLPLPTRKLDRKERVGV
F023	[0461,0464]	004	RLRT
F024	[0466,0475]	010	PLYSDQQKQD
F025	[0477,0674]	198	LGTRNKKTLVFHPFELQWGQLGKGRAGRGITGSLVHL VLVLEGFVACFVEETRADDGFCHRIGVTIGRRPTVFK VALLLLADSPGNADTGTAVGNTGRKVVDVGGFVESSQ TPGVVQAPLGIVGANVVLVPLAQFVNGLLNAPSGNSE DEGPSTRMGAGMNPRRKKALSPSGQSLTCSANYPLDG KTPNHSPLPTSKN
F026	[0676,0724]	049	VSHLLVFLLSSNAFLSILFLKYLPYRLSNRHKLTGLE QICRARHVRTAL
F027	[0726,0816]	091	VPKALLPHENTDGSKGRYLLQTILLPHGLGAEVGMAA CTIPVPWNGLGVKGCYHPKVFAHPMQDKTGYPKMISH SDPLTGSYLEFPLERKS
F028	[0818,0829]	012	PLRSTLCDCPTL
F029	[0831,0900]	070	STPASPKSPCAYLPRSSERRKKMGTIYLGRHNLRICP RNLDSSIQAGPVVSLHDVPAVGLVCSHTAVIRA
F030	[0902,0926]	025	RRFKTQQGRVSQGIQETPKPKTRRA
F031	[0928,0944]	017	TCFPESLVLPSAAGGRI
F032	[0946,0954]	009	VIPSLPRPR
F033	[0956,0982]	027	RPCLLFLSGFSLVLCVLAYLQYGQRLT
F034	[0984,1017]	034	GSHFLPSTKWVPGGDSGCQAWWVTTEPSHHSLSL
F035	[1019,1134]	116	ILTTSGCEGCKVGLLLRFCCWSPFSHFRIAPISGEGD FLDSNNLGEEVSPFTQWDVPWGPGKPLEGQPNGWPSV PIRVYSCSIPNQGCWLLTMSIIRLQMCLKLVSRNKES TCHQD
F036	[1136,1152]	017	SPLTQLQCWSQERLTQA
F037	[1154,1174]	021	PPCFITKENGRSDNCPFAGNG
F038	[1177,1179]	003	TFL
F039	[1181,1222]	042	LKSATQHHGNGIRASGHPICMLATIPTPHARHSFSDS QDNCF
F040	[1224,1240]	017	LSDVFPSVSDTEGQICY
F041	[1242,1242]	001	E
F042	[1244,1246]	003	FVH
F043	[1248,1256]	009	VHMPGEFKC
F044	[1258,1261]	004	VLQL
F045	[1263,1266]	004	LVQK
F046	[1268,1282]	015	IGRQTYRHIIIYEYS
F047	[1284,1288]	005	KQFPS
F048	[1290,1299]	010	KKNNHLSLRY
F049	[1301,1335]	035	QPSFWQGMVAHTFDPSTWEAEAGRFLSSRPAWSTE
F050	[1337,1382]	046	VPGQPGLHRETLSWKKKNKKKQTKKTFIFTNKKMKPQ ERVLGGTPR
F051	[1384,1422]	039	QDRHRAHLLPIMLLPFETEALKAQGHQALLALLEDIS QK
F052	[1424,1431]	008	DFPRFKAI

F053	[1433,1450]	018	KRRWIAQCKLNSTHVQAG
F054	[1452,1462]	011	MHIPKSRCSYL
F055	[1464,1474]	011	VFRLNKLSGIK
F056	[1477,1509]	033	PIVNVQYSQVIVAHGHSCDLPMTSGWALIREDY
F057	[1511,1645]	135	DGSVGKGVATRAWQPEFHLQSSHKQAGDNQLQRCPLT STHPARHALRRMLSTYSTHNSEEKKAGRTVVDLVFKF KNYRTFKHRLLDQQVEVARQQTDRRANTIQTIKGTME ERIEHTVPNRKVQGRIATLPSLRS
F058	[1647,1714]	068	RAASQFIENVTSLEFQDLQPATPIPYLPAGFRLYLKT SHSTSLLGSLRKGSRNMATGWRYMSLLEPSD
F059	[1716,1737]	022	KVLEPSKFHSGNSGQDKDRKLN
F060	[1739,1739]	001	L
F061	[1741,1773]	033	TCYLSLQEEARRGGLDLPELRVTDGCEPLCGCC
F062	[1775,1779]	005	LNPDR
F063	[1781,1788]	008	EQQELSIT
F064	[1790,1832]	043	KPTTVCNFSSCGPHSLISAGTEHMERACARAHTHPYT YSFKSF
F065	[1834,1836]	003	CTR
F066	[1838,1870]	033	EDGQPLTHPFVAHHHFVFMRSEVHVTASTSGIT
F067	[1872,1975]	104	RHLSLSPIPVSPDLRVPRALHPKSHLSRKPVLSVQVS CVLWYHFQCVRHTQDKTQNKQKNPTSSSRPSSSPFSH SPQVQLLYFKLCLYINSCFPTACLVFSLLS
F068	[1977,2025]	049	WSGLTLQLPLSSQKAETEEPTHTLPSTKYTIHALLSG HSFTQTETSLEE
F069	[2027,2050]	024	PILSQVDGEGATPLLSSYGLLGLC
F070	[2052,2068]	017	ETQATTKINLEVYTIIK
F071	[2070,2082]	013	RQKPFYGWWLPQH
F072	[2084,2085]	002	PY
F073	[2087,2101]	015	MVEALGRVETDCSIN
F074	[2103,2121]	019	IAYSSYTSPLKLGSWGWPG
F075	[2123,2132]	010	HTAASHPPQT
F076	[2134,2167]	034	PSIFLQCTSTRQSPSKERLPLLLRLQTMQQLTYG
F077	[2169,2172]	004	LTKV
F078	[2174,2244]	071	KALQTKQKEGGSEAVRTLPGVRTLRPGTHLPHTWAHS PGYGSCSAVLLRYHQPRYTWLGLSHPGAGTCTFA
F079	[2246,2271]	026	CLCSSGNLLRWPWWKVFWRETEIAFY
F080	[2273,2280]	008	YRIQRDPL
F081	[2282,2292]	011	GTARESGWRAW
F082	[2294,2318]	025	SRSSGTGHTQRCIIHSAFKGFKVLY
F083	[2320,2328]	009	TRTMPPQGD
F084	[2330,2336]	007	LRDFNNR
F085	[2338,2338]	001	T
F086	[2340,2352]	013	EMLAGENKYQDVH
F087	[2354,2371]	018	QNILFYQQNYLIATERLD
F088	[2373,2397]	025	LTVESCFVFHSLEQPFFFFLETGFL
F089	[2399,2408]	010	MALVVLELTL
F090	[2410,2428]	019	TRLALNSEIHLPLPPKCWD
F091	[2430,2443]	014	IKACATTAQLLEQP
F092	[2445,2450]	006	GTHNPL
F093	[2452,2457]	006	SLHTYI

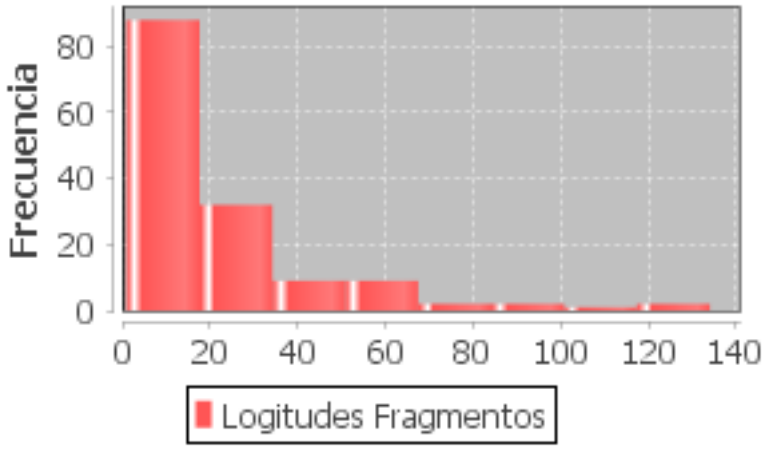
F094	[2459,2484]	026	TIYLFETKSHCGALELMPTRLASESN
F095	[2486,2494]	009	ICPSQHPER
F096	[2496,2496]	001	N
F097	[2498,2511]	014	RCMPPPSLDYTMKY
F098	[2513,2513]	001	G
F099	[2515,2515]	001	L
F100	[2517,2520]	004	DFKG
F101	[2522,2550]	029	HIPGRKKGPVLSATTKVVKSKAILQGAHC
F102	[2552,2573]	022	LVFWFFFFFFETEKSQQALSLS
F103	[2576,2635]	060	LLTHYLHQAFLKIRGSTSLCLLRAGIKGMPPPHQASTADFITVVKSLTPETDFNVKINSI
F104	[2637,2646]	010	RSHRIIFSGT
F105	[2648,2685]	038	KNPTSKFTSHRSRGKIFDECEATKNQPQNTRGNAPLPP
F106	[2687,2706]	020	SPRIAGEGTYCSPPMTWATF
F107	[2708,2758]	051	STVAKFLWATVHVCPSENNCLSLQKPHPSPGEQMSLCCQVRCRTKASAYTT
F108	[2760,2763]	004	RPGL
F109	[2765,2765]	001	F
F110	[2767,2816]	050	MASIYTTHQLSSSAVPPAPHTHTSSINELLGEPEFLLWPWFPETSWVPAA
F111	[2818,2819]	002	CT
F112	[2821,2835]	015	IAPTGVPVVQSGMGS
F113	[2837,2839]	003	NSE
F114	[2841,2853]	013	FLRVARCTRGPSP
F115	[2855,2871]	017	LLLTPANENQMHWGCTL
F116	[2873,2876]	004	TSSF
F117	[2878,2921]	044	SSVHASPRSRFLAGLSNGAFWARAMEWGTQTVRRGRCWNKTGAI
F118	[2923,2923]	001	S
F119	[2925,2941]	017	PSTSPRSSQSRQRSLKY
F120	[2943,2983]	041	KGTLRTENLHLLRLQWLVSLSICGWGRIPASRPRRSWGNPL
F121	[2985,2989]	005	KQPSH
F122	[2991,3003]	013	NVRKVGAATLGPA
F123	[3005,3128]	124	ISRPLPGGHTPARVEAGWREWGDRGRHSAPLLPPLGAASPLRSPPATPGLRLSIVRSYGKGLGHGVGSWGVVPSTLRTTILNQTTHSVTTPPKCAARKRGSRRLRPPKARTLSRWDHRKAPISA
F124	[3130,3146]	017	TPANGACLPGRRLRPQV
F125	[3148,3230]	083	NRSKQPATPPFPELGSQRVLGTPSRAGPGRTLQTRGRHERCIPLRTAADWSWEVECDPTARAAVHSWTLRALTRAVAGRMMDG
F126	[3232,3263]	032	TGQESEAERRWVSVLFRHSALLPFSALQGRWL

Histogramas:

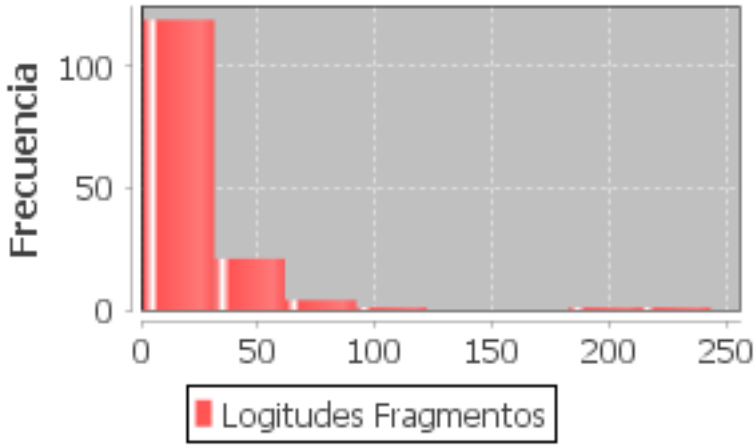
Histograma ML 1



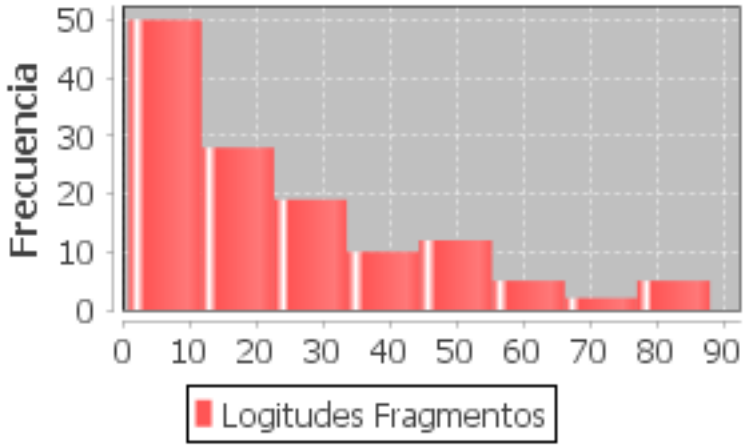
Histograma ML 2



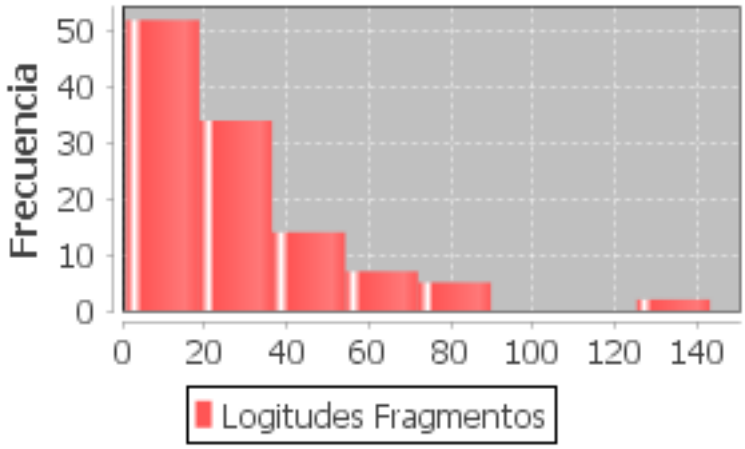
Histograma ML 3



Histograma ML -1



Histograma ML -2



Histograma ML -3