Secuencias y Traducción de MaizC8.fna

La secuencia de ADN es:

ATCAGGTCAG	GCCACCACTG	CAGCAGCAGC	AGCAGCTGCT	GCTGCTAACT
GCATCACCTC	ACATACTTTC	CCCTCTCCCT	TCCTCAGCTC	CCTTTAATAC
CTCACCCTCC	TCTCCTCCCT	TCTCTGGGCT	GGCCGGATCT	CTTCCCTGCA
GATCGAGAGG	CACTGCCAAC	ACCACCACCA	CCACCACCAC	ACCATGCTCA
ACATGATGGT	AAATATTTGC	CTCCTGCTGC	CTTATCTTGC	TTTGCTGCTA
GCTCCTCCCT	GGAAACTAAC	ATAACGGATC	AGCTAGCTAG	CTTCCTTTTT
CCCCTCTCTC	TCTCTCTCTC	TATCTATGTC	TTTTGCACCA	TCTGCGTAGC
AGTGTAGGAG	TAGTAGGATC	TTGGTTGCTA	TGCTGCAAGG	ATCTAGCTAG
AGAGGCAACT	AGAACATACA	TACACACATG	GCTCTCTGGT	GTCTGGTCTC
TGATTTTTT	TGGGTGCGTG	GGGGTGGTGC	GGGGGAAAAA	AAAAGACACG
CCACAAGAGA	GAAGAGGCAT	GGAAATTAAT	TTTGATGCGC	CCAGATGCCT
AGGAGGAATT	TCTACTATAT	AGAAAGGTCC	CTATAGAAAG	CCAAGAAGAT
CGACCACAGG	CCAGCACAGC	TCGCGCCGCT	ATACTCCATC	ACCTTCCTTC
CTTCCTCCTT	TACTGGAAAT	TGGAATTTCT	TGCGCTTTGT	TAGTTAATTA
TATTTCCTTC	TTCTCCAGAC	TGATCTGAGC	TGCGGGCCGT	CGTCCAAGGT
CAAGGAGCAG	GTGGCGGCGG	CGCCGACGGG	CTCCGGCGAC	AGGCAGGGGC
AGGGGAGAGG	CAAGATCGAG	ATCAAGCGCA	TCGAGAACAC	GACGAACCGG
CAGGTGACCT	TCTGCAAGCG	CCGCAACGGC	CTGCTCAAGA	AGGCGTACGA
GCTCTCGGTG	CTCTGCGACG	CCGAGGTCGC	GCTCGTCGTC	TTCTCCAGCC
GCGGCCGCCT	CTACGAGTAC	GCCAACAACA	GGTGATGATG	CATATATCTG
TACGCGTATC	TTAGTTAGAT	TAGATCCTAG	TCGTACACTA	CACACCGCGC
GGGCGGGCGG	GTCAGCTGTT	TGCACCGTCC	GATTGGTCCC	AATTGGAGCC
AGAGCCAGCT	CGTCGCTCCC	ATCTTAATTT	CTCGAGGCAG	AAGAAGCAAG
AACTAGCTAG	CGAGGACGAG	GGATGGGGAG	CCGCCATCTT	TCTTGTGGCT
GACTTCATTC	TCTGTTATAT	CAACCGCATG	CTGCTGTGTC	TCGTTCTTGA
GAAGAGCATG	CAACAAAGGG	GGAAAGAAAA	ATTGCCACGA	ACACCTCCTT
TCTGCGATGC	GGATTTCCAT	TCCCCTTTGC	TCTAGCTCCT	GCCTGCCTGT
GAGGCAAGCA	AGGTGAGGTG	AGGCTAGATG	TTTGCATAGA	TCTAGTACAG
AGCTTGCTGT	ATGCATGTGT	AGTGTAGTGC	ATCCTCAGCC	GGCCTTTCCT
TCGATCTTGT	TGCGAGCTGT	GACTCTGGGA	GAGCGCAAGC	AAAGGAGAGA
GCTGATCGAG	CTTCTTTGGC	CATGGTGGTC	CTGCCTCCCT	ATTCTTGCTG
TATTTATGCC	CTTTCCTTTC	TCACCGGCCG	TGCTGTGCTA	GTAGCTCCTC
ACGGGTGTGA	CACAGGTGTG	GAGACAAGGG	AGCTGATGCA	TGTATATATA
TGCAGGCTGT	AGATCTCACA	CACCCGGTGA	TAGATAATGA	AATACTCCTA
TCAATTTGTT	TTTTTTTTTT	TGCTTGTGTA	GAAGCAGATC	TAGCCAGCTC
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GAAAGCGTGT	ATGAGTGTGT	GAGGTAACAA	GGAAGAGAGA	GAGAGAGA
GAGATATAAA	AAGGAACTGC	CATGCCAACT	CTTCAGTTTC	TCTCTTGCAT
CATCGTCTCC	TTCTGTTCCT	AGCCAAGGGC	TTCATCCCAT	GTGCTACCTC
TCTCTCATAC	TCATAGTACT	CTCTCTCTCT	CTCTCTCTCT	CATCGCATCA
CATCACCAAT	TCACCATGTG	TGTGTGTGTC	CACGGGAGTA	CTTGCTGATT
TCATCACCTG	AGTGGCACAC	CAAGAGACTA	TTTCAAGAGG	GAAACCAAAC
AGAAACATTT	TTCAGTGAAG	TCCCAGAACA	GAATTTGCTT	TGCCAAACTA
ATAATAATAA	GAAGAACTAA	GGTGCCGTTT	GGTTCACATA	TTTGTAACGT

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		GATACCAACC		TGTTACCACT
		TACCATTGCC		
		GCTACACACT		
		CCATGAACTA		
		GACCCACTTT		
		GGTCCGCCAG		
		GCTCGTTCCA		
		GACACGATTG		
		CTTAGAAGTC		
		CCCATGATCC		
		TATGAAGAGT		
		GGAATACTAA		
		ACTAGAACTC		
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TTCTGCTAAA	GAGAATCTAT	TAAACTCATA	ATTCATTAGA	TCCTTGTTAG
CAATGTCAAC	TAGGTATCAT	AAGTAAATGG	ATCTCGGTTG	TTCAATCCTT
TGATAACCAA	GGTCATTCTT	TGCTAAAGAG	AAATGATCAC	TATGGGTCAG
ACTCAATAGA	ATTGGATCCA	TTCCAAATAG	CGAGAATTAG	GATTCTTGAT
CCCTCTCAGT	CTCTCTTTCA	ATTCGAGGAT	CCGGAGAGGT	GTTTTCATAG
TCATCTCCGA	ATATTTGCCA	TCTCCGAATA	TTTTCGATTA	CTGACAATGA
GCTGTCATTG	TTTGATAGAG	AGAGAGAAAA	AAAAATCAAA	ACACACAATT
AATAGTAAGG	TAGTAATGCA	AATAAGAGCC	AGCTATAGCT	GACCGTCTAC
ACGCAGAGCT	GAGCTTCTCA	TGACTATGAT	CGTATGTTTG	GGAGTGAAGA
ACACGTGGCC	ATGCATGCAT	ATACTGTGTC	TGTGTCATCT	CATCCCTGGC
TATAGGGTAC	GTGAAGCGTG	CAGGAGCATG	CAAGCAAAAC	CTGATGGAAA
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TGACTGGTGC	CTTTGTGGCG	GCCTGTGCGG	ACTGCGGACA	GACTGCTAAA
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TAAAACATGC	ATGCCCACTG	TACTGTTCCC	ACCCAATCAT	GTGAATTCCT
GTGACCAGCT	GCGTGAACAA	CGCACTGGCC	ACCCAACACC	GCACTACTCG
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ATATCGTGCT	TAATTTGATG	TTGGAGCTTT	TTTTTTTGGC	TTGCTGCTTA
		TATTTATCGG		
		AAGGTCAAAA	_	
	_	TGTGATGAAT		
TAGTTCCCCC	CTCACATCGT	TGGTATACTA	CTGAACTCTA	AAAAAAAGTA

<u> </u>	\ 7 \ \ 7	ATACAAAATT	እ አጥሮጥ አጥሮጥ <u>ሮ</u>	AAGTGTAGTA	λ C λ C λ C λ C τ C
ATATAA			AAAGCATGCA		
TCTGAAT			CTAGAGAAGA		
TAGTTGA		TATCCACCCT		TTTACCAAAA	
		TGCTCCAATC	01111011101	GGATGTAAAT	
		AGATCTGAAT		AAATAAACAA	
GTAACGO		TAATCTAGTT	CTTCATTTCT	TATGTTTTTT	TAACAACACA
AGCATTT		TAGCATGCGT	CTAGTTTTCT		ATGGATTTTT
GCCGTCA		TTTACCCTTT		TGACAACCTC	
TTCTTAG	TAA	AATAAGAATC	TCTTGAAGAA	ATGAAGTTGT	CAAACTAGCC
CACGTGG		TGTGTGGGAA			TGGCCGTGTA
GCTGAAT	CGA	TGTGCCATAT			TAACGATGAA
		AGCCCCTTAG			GCATGAACAA
GAACATT		TGCAGCTATT			ACTGAAGATG
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		CTAGCACAGG			CTGTTCGCCT
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CCCATCO	ATA	GCTAGCAATG	GAACGGGATT	TTGAATCATC	TTATGCTAGC
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CTCCGAC	CAGT	GGGCATATCA	TCATTATATT	GCAGTGTGAA	GTCCACCATT
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GAGACA	AGAA	ATTCAGAGCA	GAAAGTACGG	GCATTTGCAC	AATGGATACT
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AAACATO	STAG	TACGCAATAG	CTCGCAAACA	AGAAGCTCCG	ACAAATTAAA
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CTCATTO	SAGT	CTGACCCGGC	AGTATTAGAT	ACAGTACCAA	CATCAATTTA
GTATATO	CTTC	CAACTCTAGC	GCTTTAGCAG	ACTTTGGAAG	TCAGTTTCCT
TGTCTCC	CACA	TGAAATAAAA	GAAAACTGAG	AACTCTTGCA	TGGTGATCTG
ATGATA	AATA	AGGTCTCTTG	ATTTTATGGA	TTAAGTATTG	ATGTGTATTT
ATTGAAT	TAAA	CATGCATGGT	TATCTGATGA	CAAAATTACC	TGAACTTATG
GATGTTT	TGGA	CAGTCACACT	CACACATAAA	GATATAGTGA	AGCATATATG
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TCATATO	CAGA	GCCTCGCTCA	GACTGCAAAC	TGCATCTCTC	CCTCTCTATA
TATACTI	GGT	TTTTTATGGG	CATTACTATG	TAGTCGGTTT	AAAAATCATG
TTAGTAT	TCA	TATGGGCAAA	TCCTAAGAAA	TGCATGCATA	CCGATCATGT
ACAAAGG	TAT	TTAGTATACA	TATATAATTA	TTTATACCAC	AAATTAAATT
TAGAAAT	GAT	TAGGAACTTC	ACTGTGCTAC	CAAACTAGTG	ATTTCACATG

CATGTTGTGA GATAGTATAT CATGAATAAC TCCTCCCAGT TCAAACAAGT CTAAACATTC TCTGGCATGT TTCTTTTAT TTTCTATACT ACTTTCTTGC AAGAACAGTT ACTCATCCCA ATAAGCAGAA GCTCTATTTG CTGACTGGTT ACATCCATAC CTGTAAACTT GCAGTACTAC CAGCAGGAGT CCTCCAAGCT GCGACAGATG ATCCACAGCT TGCAAAACGC AAACACGTAA ATTCTACAAA TTCAATATGG ATGTATATGT TTTGTTTTGA CTTCATTAAC AGTAAAAAGC GTGTGGTATA TGCAGCCTAA CTTGTTTAGA TGGTCTAGTA GGAACATAGT GGGAGATTCC ATCCACACA TGGGCCTCAG GGATCTTAAA CAAATGGAGG GCAAGCTGGA GAAAGCCATA ATCAAGATTA GAGCTAGAAA GGTATGCAGC ATTAACTGTG GTACAGATAT ATAAAACATT TTATAGGCAG AGTACATGCA TGTGCAACCT TCTTTTACCA GCCAGTTTAA ATGCATATTA CTATAGCTCC ATAGATTTCA GAGAACCTGA ACCAACAACC CCCCCCCCC CCCCCCCCC CAACAACAAA AAAAAATCCT ACAGTATTGA AAGTAGGCCT TATAGAATAA ATGGTAGAAA TGCCTGCCGC TGCAGGTTAT CGAATCTATG AGGAATTACA TAATTGATTT TGACTTGTG TTGAACTGCT GATGAGCAAT TAACATGGTC TTTCTTGCAT GCAGAATGAG CTGCTATACG CTGAAGTTGA CTATATGCAA AAAAGGGTTA GTGTAGTTCA GCGACCCTCT GCACGCTAGT TCTTTTGTTT CCCCGACAGT TTATTAACCA ACCTCGCTCT TACTGACATG TGGCATGAAT TTTATTTCA GGAGATGGAT CTGCAGACTG ACAACATGTA CCTGAGGAGC AAGGTATGTT AACGCAGTAG TAGCCATCTC ACCGTCTGAG TCTCTCAGAG CATGCGTGCA GTCTGCCTGG TCCTTAAACC ACGCACACA TGAATCCTTC CCATTGCACG GATGCTGCAG ATCGCTGAGA GTAATGAAAC GGGGCAGCCG GCGATGCACA TGACGATGGG AGCGCCGCCG ACGAGCGAGT ACGACCACAT GGCCCCTTTC GACTCGAGAA ACTTTCTGCA AGTGAGCATG CCTCAGCACT ACTCCCATCA GCTGCAACCT ACAACCCTCC AGCTCGGGTA ATCCCAAACA GCCCTTCAGT TAACAATTGT CTCAGCTCCA CACTACTGCA CACACGGTCA CACATGCAAT CATCCACATT TGGTGCAGGA GTCTTACCAC AGTTGCACAT ACATATGGAC TGCATTATTA GCTAGCAAGG GAATACCAAG TCATTAGCAT TATTAATTGT ATATGTGTAC ACCGTTTATT GTATCTAAAT CCTGTATATA CACACTGGTG GTGCTGCAGA TGATGAAATC AGCGCTATAC CTGGCGGCGC CCGGCCCCA ATCGAGATAG ATCACGCATG CAGTTATATC ATGTGCCAAA TCGAGATCTC AAGTAACTCT ACGTACGTTT GCTTAATTAT TAATAATTGT GATTAGTGCA ACTGTTAGGG TATATATAT TGTGAGTGCC ACCACTGTGT GCGTGCATTT GTACGTGTGA ATTTAGCTGT TGCATCTACT ACTATTGTAC CCTCCGGCCA GGCCATATCA TCAGAAACGC GGGTTTATTT ACGCATACTT ATATATAT GATTTGTGTG CTTTATATAG ATTGAAAAGA GTATGTTGGC CTCTCTTCTG AA

Secuencia inversa:

AAGTCTTCTC	TCCGGTTGTA	TGAGAAAAGT	TAGATATATT	TCGTGTGTTT
AGTATATATA	TATTCATACG	${\tt CATTTATTTG}$	GGCGCAAAGA	CTACTATACC
GGACCGGCCT	CCCATGTTAT	CATCATCTAC	GTTGTCGATT	TAAGTGTGCA
TGTTTACGTG	CGTGTGTCAC	CACCGTGAGT	GTTTATATAT	ATGGGATTGT
CAACGTGATT	AGTGTTAATA	ATTATTAATT	CGTTTGCATG	CATCTCAATG
AACTCTAGAG	CTAAACCGTG	TACTATATTG	ACGTACGCAC	TAGATAGAGC
TAACCCCCGG	CCCGCGGCGG	TCCATATCGC	GACTAAAGTA	GTAGACGTCG

TGGTGGTCAC	ACATATATGT	CCTAAATCTA	TGTTATTTGC	CACATGTGTA
TATGTTAATT	ATTACGATTA	CTGAACCATA	AGGGAACGAT	CGATTATTAC
GTCAGGTATA	CATACACGTT	GACACCATTC	TGAGGACGTG	GTTTACACCT
ACTAACGTAC	ACACTGGCAC	ACACGTCATC	ACACCTCGAC	TCTGTTAACA
ATTGACTTCC	CGACAAACCC	TAATGGGCTC	GACCTCCCAA	CATCCAACGT
CGACTACCCT	CATCACGACT	CCGTACGAGT	GAACGTCTTT	CAAAGAGCTC
AGCTTTCCCC	GGTACACCAG	CATGAGCGAG	CAGCCGCCGC	GAGGGTAGCA
GTACACGTAG	CGGCCGACGG	GGCAAAGTAA	TGAGAGTCGC	TAGACGTCGT
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TGACGTGCGT	ACGAGACTCT	CTGAGTCTGC	CACTCTACCG	ATGATGACGC
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GGACTTTTAT	TTTAAGTACG	GTGTACAGTC	ATTCTCGCTC	CAACCAATTA
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TGATTGGGAA	AAAACGTATA	TCAGTTGAAG	TCGCATATCG	TCGAGTAAGA
CGTACGTTCT	TTCTGGTACA	ATTAACGAGT	AGTCGTCAAG	TTGTGTTTCA
GTTTTAGTTA	ATACATTAAG	GAGTATCTAA	GCTATTGGAC	GTCGCCGTCC
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AAAAACAACA	ACCCCCCCC	CCCCCCCCC	CCCCAACAAC	CAAGTCCAAG
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CTTCCAACGT	GTACGTACAT	GAGACGGATA	TTTTACAAAA	TATATAGACA
TGGTGTCAAT	TACGACGTAT	GGAAAGATCG	AGATTAGAAC	TAATACCGAA
AGAGGTCGAA	CGGGAGGTAA	ACAAATTCTA	GGGACTCCGG	GTACCACACC
TACCTTAGAG	GGTGATACAA	GGATGATCTG	GTAGATTTGT	TCAATCCGAC
GTATATGGTG	TGCGAAAAAT	GACAATTACT	TCAGTTTTGT	TTTGTATATG
TAGGTATAAC	TTAAACATCT	TAAATGCACA	AACGCAAAAC	GTTCGACACC
TAGTAGACAG	CGTCGAACCT	CCTGAGGACG	ACCATCATGA	CGTTCAAATG
TCCATACCTA	CATTGGTCAG	TCGTTTATCT	CGAAGACGAA	TAACCCTACT
CATTGACAAG	AACGTTCTTT	CATCATATCT	TTTATTTTTC	TTTGTACGGT
CTCTTACAAA	TCTGAACAAA	CTTGACCCTC	CTCAATAAGT	ACTATATGAT
AGAGTGTTGT	ACGTACACTT	TAGTGATCAA	ACCATCGTGT	CACTTCAAGG
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TTTTTTTCCTTT				
IIIAIGGAAA	CATGTACTAG	CCATACGTAC	GTAAAGAATC	CTAAACGGGT
	CATGTACTAG TTGTACTAAA	0011111001110	01111110111110	01111100001
ATACTTATGA	0111 0 1110 1110	AATTTGGCTG	ATGTATCATT	ACGGGTATTT
ATACTTATGA TTTGGTTCAT	TTGTACTAAA	AATTTGGCTG CCCTCTCTAC	ATGTATCATT GTCAAACGTC	ACGGGTATTT AGACTCGCTC
ATACTTATGA TTTGGTTCAT CGAGACTATA	TTGTACTAAA ATATATCTCT	AATTTGGCTG CCCTCTCTAC GTATTTTATC	ATGTATCATT GTCAAACGTC TTTTGTAAGT	ACGGGTATTT AGACTCGCTC CCATTCGGTA
ATACTTATGA TTTGGTTCAT CGAGACTATA TGCTAACGTG	TTGTACTAAA ATATATCTCT CTTGAAGTAT	AATTTGGCTG CCCTCTCTAC GTATTTTATC GAAGTGATAT	ATGTATCATT GTCAAACGTC TTTTGTAAGT AGAAATACAC	ACGGGTATTT AGACTCGCTC CCATTCGGTA ACTCACACTG
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ATACTTATGA TTTGGTTCAT CGAGACTATA TGCTAACGTG ACAGGTTTGT ACAAATAAGT	TTGTACTAAA ATATATCTCT CTTGAAGTAT TGGTATATAC AGGTATTCAA	AATTTGGCTG CCCTCTCTAC GTATTTTATC GAAGTGATAT GTCCATTAAA TAGTTATGAA	ATGTATCATT GTCAAACGTC TTTTGTAAGT AGAAATACAC ACAGTAGTCT TTAGGTATTT	ACGGGTATTT AGACTCGCTC CCATTCGGTA ACTCACACTG ATTGGTACGT TAGTTCTCTG
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ATACTTATGA TTTGGTTCAT CGAGACTATA TGCTAACGTG ACAGGTTTGT ACAAATAAGT GAAATAATAG GTACACCTCT ACCTTCTATA TCTGAGTTAC	TTGTACTAAA ATATATCTCT CTTGAAGTAT TGGTATATAC AGGTATTCAA TATTTATGTG TAGTCTAGTG GTTCCTTTGA TGATTTAACT	AATTTGGCTG CCCTCTCTAC GTATTTTATC GAAGTGATAT GTCCATTAAA TAGTTATGAA GTACGTTCTC CTGAAGGTTT ACAACCATGA CGTATTATTA	ATGTATCATT GTCAAACGTC TTTTGTAAGT AGAAATACAC ACAGTAGTCT TTAGGTATTT AAGAGTCAAA CAGACGATTT CATAGATTAT TGCCTCATAT	ACGGGTATTT AGACTCGCTC CCATTCGGTA ACTCACACTG ATTGGTACGT TAGTTCTCTG AGAAAATAAA CGCGATCTCA GACGGCCCAG TAGGTAGCCA
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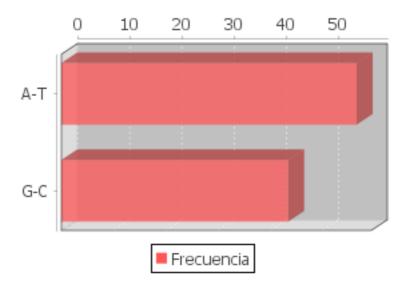
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AAGATACGCG	TACAGATATA	TGCATCATCA	CCTGTTGTTG	GCGTACTCGT
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AGCACCGAGA	GCTCGTACGC	CTTCTTGAGC	AGGCCGTTGC	GGCGCTTGCA
GAAGGTCACC	TGCCGGTTCG	TCGTGTTCTC	GATGCGCTTG	ATCTCGATCT
TGCCTCTCCC	CTGCCCCTGC	CTGTCGCCGG	AGCCCGTCGG	CGCCGCCGCC
ACCTGCTCCT	TGACCTTGGA	CGACGGCCCG	CAGCTCAGAT	CAGTCTGGAG

AAGAAGGAAA TATAATTAAC TAACAAAGCG CAAGAAATTC CAATTTCCAG
TAAAGGAGGA AGGAAGGAAG GTGATGGAGT ATAGCGGCGC GAGCTGTGCT
GGCCTGTGGT CGATCTTCTT GGCTTCTAT AGGGACCTTT CTATATAGTA
GAAATTCCTC CTAGGCATCT GGGCGCATCA AAATTAATTT CCATGCCTCT
TCTCTCTTGT GGCGTGTCTT TTTTTTTCCC CCGCACCACC CCCACGCACC
CAAAAAAAAT CAGAGACCAG ACACCAGAGA GCCATGTGTG TATGTATGTT
CTAGTTGCCT CTCTAGCTAG ATCCTTGCAG CATAGCAACC AAGATCCTAC
TACTCCTACA CTGCTACGCA GATGGTGCAA AAGACATAGA TAGAGAGAGA
GAGAGAGAGG GGAAAAAGGA AGCTAGCTAG CTGATCCGTT ATGTTAGTTT
CCAGGGAGGA GCTAGCAGCA AAGCAAGATA AGGCAGCAGG AGGCAAATAT
TTACCATCAT GTTGAGCATG GTGTGGTGGT GGTGGTGGT GTGTTGGCAG
TGCCTCTCGA TCTGCAGGGA AGAGATCCGG CCAGCCCAGA GAAGGGAGGA
GAGGAGGGTG AGGTATTAAA GGGAGCTGAG GAAGGGAGAG GGGAAAAGTAT
GTGAGGTGAT GCAGTTAGCA GCAGCAGCTG CTGCTGCT TGCAGTGGTG
GCCTGACCTG AT

Porcentajes:

- Secuencia:
 - A: 27.678165% - C: 22.423967% - T: 28.881071% - G: 21.016796%
- Secuencia inversa complementaria:
 - A: 28.881071% - C: 21.016796% - T: 27.678165% - G: 22.423967%
- Porcentajes agrupados por nucleótidos complementarios:
 - A-T: 56.559235% G-C: 43.440765%

Diagrama de barras:



La traducción de esta secuencia se muestra a continuación:

Marco de lectura 1:

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IRSGHHCSSS SSCCC*LHHL TYFPLSLPOL PLIPHPPLLP SLGWPDLFPA
DREALPTPPP PPPHHAQHDG KYLPPAALSC FAASSSLETN ITDQLASFLF
PLSLSLSIYV FCTICVAV*E **DLGCYAAR I*LEROLEHT YTHGSLVSGL
*FFLGAWGWC GGKKKTRHKR EEAWKLILMR PDA*EEFLLY RKVPIESQED
RPQASTARAA ILHHLPSFLL YWKLEFLALC *LIIFPSSPD *SELRAVVQG
QGAGGGGADG LRRQAGAGER QDRDQAHREH DEPAGDLLQA PQRPAQEGVR
ALGALRRRGR ARRLLOPRPP LRVROOOVMM HISVRVS*LD *ILVVHYTPR
GRAGQLFAPS DWSQLEPEPA RRSHLNFSRQ KKQELASEDE GWGAAIFLVA
DFILCYINRM LLCLVLEKSM OORGKEKLPR TPPFCDADFH SPLL*LLPAC
EASKVR*G*M FA*I*YRACC MHV*CSASSA GLSFDLVASC DSGRAQAKER
ADRASLAMVV LPPYSCCIYA LSFLTGRAVL VAPHGCDTGV ETRELMHVYI
CRL*ISHTR* *IMKYSYOFV FFFLLV*KOI *PAPSCYCCT GWSGTRACVH
ESVYECVR*O GRERERERYK KELPCOLFSF SLASSSPSVP SOGLHPMCYL
SLILIVLSLS LSLSSHHITN SPCVCVSTGV LADFIT*VAH QETISRGKPN
RNIFO*SPRT EFALPN**** EELRCRLVHI FVT*WVINNV KSCLF*SNRN
QIPH*KLIPT YSNLLPLVIY RKPLPLPFAL HFLNQTASKF ATHCNLFLSE
HLLLLIGHEL *IEKNHSERV HKKRPTFSSV PGEDQRSCAT GPPEKLKRER
SLVNLFMLVP SSKYRLTKEK AAS*HDCLFI *IDIGSMGLL LRSLFCTRSP
PI**KRVP*S RAGLILARKP QVCL*RVNLI VLVSIMDFLR GILMDRA*LL
SATRSSALEL VVMDPNPLVW NIVFSK*KPL VYERMKRCFR SCGIRSPRTL
MKGK*EFFVR YLTK*DCPVP IEPITKIPDR AKRNEKGFP* DGK*KRLAPH
EVWE*VIV** *ARNIRLSAK ENLLNS*FIR SLLAMSTRYH K*MDLGCSIL
**PRSFFAKE K*SLWVRLNR IGSIPNSEN* DS*SLSVSLS IRGSGEVFS*
SSPNICHLRI FSITDNELSL FDREREKKIK THN***GSNA NKSQL*LTVY
TQS*ASHDYD RMFGSEEHVA MHAYTVSVSS HPWL*GT*SV QEHASKT*WK
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PFSVRS*LCA CVCVCARDWC LCGGLCGLRT DC*MPNGTAA WAAAADLSCT CIGAVLGSLH EE*RTLAWFR SEWLRPG*KP S*RHGVLSGV FVLCPVCTVQ CVLSILPLLR PLVCLLDKTC MPTVLFPPNH VNSCDQLREQ RTGHPTPHYS RMLVRLHLFG DESDREVACL LHCKELSWIL GP*LSSWNTQ RHLVTH*CDI ISCLI*CWSF FFWLAA*YIT ADCLFIGYFT HTI*FRVINN KVKIITNYFC LYIYN*YVMN NAN*LEHSSP LTSLVYY*TL KKSSNKOYKI NVSEV**ORV I*VFIHVKHA CHSFFLFLNI FSISREEDLC KFELVEPIHP VTFFYQKKKR HLWMLOSGGK GCK*L*CRGQ RSECKAANKQ TCGSNGLNLV LHFLCFFNNT SILLACV*FS LLVYGFLPSF FTL*D*FDNL ILIFLRIIRI S*RNEVVKLA HVGVCGKMFT *IILAV*LNR CAIYSCVLFP *R*KEV*AP* LIGAVNTHEO EH*LQLFLRI ILTD*RCQYI YIYV*TSYIY HIYNDSAQDS R*RRNHCS*R WHGASTGFGP MYSTVRLCLL NFFAFYCTVQ VIQNLQTACI IRPSYCCRPL ISV*KC*TSF LHNISSRPSI ASNGTGF*II LC*LN*TVLK QFPVLCTHSY VHVVIPNVLN *ASVRANSDS GHIIIILQCE VHH*EVQEGQ Q*LLQLWHSC RSQCPGKNHA NPFGQSIS*A ESWM*LE*SI HKSS*LVSL* EILNASLVNI LSLLLLRRAS DSEQDLQRQE IQSRKYGHLH NGYSVESCVS Y*DCLLDRCL TALCOLGTVK SFSOTKONM* YAIARKOEAP TN*ICVTIKF SIYPLLRY** MHCPPELDSK APRFSIH*AE PPMDYTPYYY ARSTH*V*PG SIRYSTNINL VYLPTLAL*Q TLEVSFLVST *NKRKLRTLA W*SDDNKGLL ILWIKY*CVF IE*TCMVI** QNYLNLWMFG QSHSHIKI** SIYGVQSYGL PECFLFYV*S SYOSLAOTAN CISPSLYILG FLWALLCSRF KNHVSIHMGK S*EMHAYRSC TKVFSIHI*L FIPQIKFRND *ELHCATKLV ISHACCEIVY HE*LLPVQTS LNILWHVSFY FLYYFLARTV THPNKOKLYL LTGYIHTCKL AVLPAGVLOA ATDDPQLAKR KHVNSTNSIW MYMFCFDFIN SKKRVVYAA* LV*MV**EHS GRFHPHHGPQ GS*TNGGQAG ESHNQD*S*K GMQH*LWYRY IKHFIGRVHA CATFFYOPV* MHITIAP*IS ENLNOOPPPP PPPPTTKKNP TVLKVGLIE* MVEMPAAAGY RIYEELHN*F *LCVELLMSN *HGLSCMQNE LLYAEVDYMQ KRVSVVQRPS AR*FFCFPDS LLTNLALTDM WHEFYFQEMD LQTDNMYLRS KVC*RSSSHL TV*VSQSMRA VCLVLKPRTH *ILPIARMLQ IAESNETGQP AMHMTMGAPP TSEYDHMAPF DSRNFLQVSM PQHYSHQLQP TTLQLG*SQT ALQLTIVSAP HYCTHGHTCN HPHLVQESYH SCTYIWTALL ASKGIPSH*H Y*LYMCTPFI VSKSCIYTLV VLQMMKSALY LAAPGPQSR* ITHAVISCAK SRSQVTLRTF A*LLIIVISA TVRVYIFVSA TTVCVHLYV* I*LLHLLLLY PPARPYHQKR GFIYAYLYIY DLCALYRLKR VCWPLF*

Fragmento	Posición	Longitud	Secuencia
F001	[0000,0014]	015	IRSGHHCSSSSSCCC
F002	[0016,0117]	102	LHHLTYFPLSLPQLPLIPHPPLLPSLGWPDLFPADRE ALPTPPPPPHHAQHDGKYLPPAALSCFAASSSLETN ITDQLASFLFPLSLSLSIYVFCTICVAV
F003	[0119,0119]	001	E
F004	[0122,0130]	009	DLGCYAARI
F005	[0132,0149]	018	LERQLEHTYTHGSLVSGL
F006	[0151,0182]	032	FFLGAWGWCGGKKKTRHKREEAWKLILMRPDA

F007	[0184,0229]	046	EEFLLYRKVPIESQEDRPQASTARAAILHHLPSFLLY WKLEFLALC
F008	[0231,0239]	009	LIIFPSSPD
F009	[0241,0336]	096	SELRAVVQGQGAGGGGADGLRRQAGAGERQDRDQAHR EHDEPAGDLLQAPQRPAQEGVRALGALRRRGRARRLL QPRPPLRVRQQQVMMHISVRVS
F010	[0338,0339]	002	LD
F011	[0341,0443]	103	ILVVHYTPRGRAGQLFAPSDWSQLEPEPARRSHLNFS RQKKQELASEDEGWGAAIFLVADFILCYINRMLLCLV LEKSMQQRGKEKLPRTPPFCDADFHSPLL
F012	[0445,0455]	011	LLPACEASKVR
F013	[0457,0457]	001	G
F014	[0459,0461]	003	MFA
F015	[0463,0463]	001	I
F016	[0465,0472]	800	YRACCMHV
F017	[0474,0552]	079	CSASSAGLSFDLVASCDSGRAQAKERADRASLAMVVL PPYSCCIYALSFLTGRAVLVAPHGCDTGVETRELMHV YICRL
F018	[0554,0558]	005	ISHTR
F019	[0561,0575]	015	IMKYSYQFVFFFLLV
F020	[0577,0579]	003	KQI
F021	[0581,0607]	027	PAPSCYCCTGWSGTRACVHESVYECVR
F022	[0609,0685]	077	QGRERERERYKKELPCQLFSFSLASSSPSVPSQGLHP MCYLSLILIVLSLSLSLSSHHITNSPCVCVSTGVLAD FIT
F023	[0687,0704]	018	VAHQETISRGKPNRNIFQ
F024	[0706,0715]	010	SPRTEFALPN
F025	[0720,0732]	013	EELRCRLVHIFVT
F026	[0734,0744]	011	WVINNVKSCLF
F027	[0746,0753]	008	SNRNQIPH
F028	[0755,0809]	055	KLIPTYSNLLPLVIYRKPLPLPFALHFLNQTASKFAT HCNLFLSEHLLLLIGHEL
F029	[0811,0872]	062	IEKNHSERVHKKRPTFSSVPGEDQRSCATGPPEKLKR ERSLVNLFMLVPSSKYRLTKEKAAS
F030	[0874,0879]	006	HDCLFI
F031	[0881,0901]	021	IDIGSMGLLLRSLFCTRSPPI
F032	[0904,0907]	004	KRVP
F033	[0909,0923]	015	SRAGLILARKPQVCL
F034	[0925,0946]	022	RVNLIVLVSIMDFLRGILMDRA
F035	[0948,0975]	028	LLSATRSSALELVVMDPNPLVWNIVFSK
F036	[0977,1003]	027	KPLVYERMKRCFRSCGIRSPRTLMKGK
F037	[1005,1013]	009	EFFVRYLTK
F038	[1015,1038]	024	DCPVPIEPITKIPDRAKRNEKGFP
F039	[1040,1042]	003	DGK
F040	[1044,1053]	010	KRLAPHEVWE
F041	[1055,1057]	003	VIV
F042	[1061,1075]	015	ARNIRLSAKENLLNS
F043	[1077,1090]	014	FIRSLLAMSTRYHK
F044	[1092,1099]	008	MDLGCSIL
F045	[1102,1110]	009	PRSFFAKEK

F046	[1112,1128]	017	SLWVRLNRIGSIPNSEN
F047	[1130,1131]	002	DS
F048	[1133,1148]	016	SLSVSLSIRGSGEVFS
F049	[1150,1182]	033	SSPNICHLRIFSITDNELSLFDREREKKIKTHN
F050	[1186,1194]	009	GSNANKSQL
F051	[1196,1202]	007	LTVYTQS
F052	[1204,1233]	030	ASHDYDRMFGSEEHVAMHAYTVSVSSHPWL
F053	[1235,1236]	002	GT
F054	[1238,1246]	009	SVOEHASKT
F055	[1248,1255]	008	WKPFSVRS
F056	[1257,1281]	025	LCACVCVCARDWCLCGGLCGLRTDC
F057	[1283,1311]	029	MPNGTAAWAAAADLSCTCIGAVLGSLHEE
F058	[1313,1326]	014	RTLAWFRSEWLRPG
F059	[1328,1330]	003	KPS
F060	[1332,1431]	100	RHGVLSGVFVLCPVCTVQCVLSILPLLRPLVCLLDKT CMPTVLFPPNHVNSCDQLREQRTGHPTPHYSRMLVRL HLFGDESDREVACLLHCKELSWILGP
F061	[1433,1445]	013	LSSWNTQRHLVTH
F062	[1447,1454]	008	CDIISCLI
F063	[1456,1465]	010	CWSFFFWLAA
F064	[1467,1482]	016	YITADCLFIGYFTHTI
F065	[1484,1504]	021	FRVINNKVKIITNYFCLYIYN
F066	[1506,1512]	007	YVMNNAN
F067	[1514,1526]	013	LEHSSPLTSLVYY
F068	[1528,1544]	017	TLKKSSNKQYKINVSEV
F069	[1547,1550]	004	ORVI
F070	[1552,1612]	061	VFIHVKHACHSFFLFLNIFSISREEDLCKFELVEPIH PVTFFYQKKKRHLWMLQSGGKGCK
F071	[1614,1614]	001	L
F072	[1616,1656]	041	CRGQRSECKAANKQTCGSNGLNLVLHFLCFFNNTSIL LACV
F073	[1658,1672]	015	FSLLVYGFLPSFFTL
F074	[1674,1674]	001	D
F075	[1676,1690]	015	FDNLILIFLRIIRIS
F076	[1692,1709]	018	RNEVVKLAHVGVCGKMFT
F077	[1711,1715]	005	IILAV
F078	[1717,1729]	013	LNRCAIYSCVLFP
F079	[1731,1731]	001	R
F080	[1733,1735]	003	KEV
F081	[1737,1738]	002	AP
F082	[1740,1751]	012	LIGAVNTHEQEH
F083	[1753,1763]	011	LQLFLRIILTD
F084	[1765,1773]	009	RCQYIYIYV
F085	[1775,1790]	016	TSYIYHIYNDSAQDSR
F086	[1792,1797]	006	RRNHCS
F087	[1799,1852]	054	RWHGASTGFGPMYSTVRLCLLNFFAFYCTVQVIQNLQ TACIIRPSYCCRPLISV
F088	[1854,1855]	002	KC
F089	[1857,1876]	020	TSFLHNISSRPSIASNGTGF

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F090	[1878,1881]	004	IILC
F091	[1883,1884]	002	LN
F092	[1886,1909]	024	TVLKQFPVLCTHSYVHVVIPNVLN
F093	[1911,1932]	022	ASVRANSDSGHIIIILQCEVHH
F094	[1934,1940]	007	EVQEGQQ
F095	[1942,1967]	026	LLQLWHSCRSQCPGKNHANPFGQSIS
F096	[1969,1973]	005	AESWM
F097	[1975,1976]	002	LE
F098	[1978,1983]	006	SIHKSS
F099	[1985,1988]	004	LVSL
F100	[1990,2040]	051	EILNASLVNILSLLLLRRASDSEQDLQRQEIQSRKYG HLHNGYSVESCVSY
F101	[2042,2068]	027	DCLLDRCLTALCQLGTVKSFSQTKQNM
F102	[2070,2081]	012	YAIARKQEAPTN
F103	[2083,2097]	015	ICVTIKFSIYPLLRY
F104	[2100,2116]	017	MHCPPELDSKAPRFSIH
F105	[2118,2134]	017	AEPPMDYTPYYYARSTH
F106	[2136,2136]	001	V
F107	[2138,2157]	020	PGSIRYSTNINLVYLPTLAL
F108	[2159,2169]	011	QTLEVSFLVST
F109	[2171,2180]	010	NKRKLRTLAW
F110	[2182,2195]	014	SDDNKGLLILWIKY
F111	[2197,2201]	005	CVFIE
F112	[2203,2207]	005	TCMVI
F113	[2210,2227]	018	QNYLNLWMFGQSHSHIKI
F114	[2230,2247]	018	SIYGVQSYGLPECFLFYV
F115	[2249,2290]	042	SSYQSLAQTANCISPSLYILGFLWALLCSRFKNHVSI HMGKS
F116	[2292,2307]	016	EMHAYRSCTKVFSIHI
F117	[2309,2319]	011	LFIPQIKFRND
F118	[2321,2341]	021	ELHCATKLVISHACCEIVYHE
F119	[2343,2438]	096	LLPVQTSLNILWHVSFYFLYYFLARTVTHPNKQKLYL LTGYIHTCKLAVLPAGVLQAATDDPQLAKRKHVNSTN SIWMYMFCFDFINSKKRVVYAA
F120	[2440,2441]	002	LV
F121	[2443,2444]	002	MV
F122	[2447,2461]	015	EHSGRFHPHHGPQGS
F123	[2463,2475]	013	TNGGQAGESHNQD
F124	[2477,2477]	001	S
F125	[2479,2483]	005	KGMQH
F126	[2485,2508]	024	LWYRYIKHFIGRVHACATFFYQPV
F127	[2510,2516]	007	MHITIAP
F128	[2518,2548]	031	ISENLNQQPPPPPPPPTTKKNPTVLKVGLIE
F129	[2550,2567]	018	MVEMPAAAGYRIYEELHN
F130	[2569,2569]	001	F
F131	[2571,2579]	009	LCVELLMSN
F132	[2581,2611]	031	HGLSCMQNELLYAEVDYMQKRVSVVQRPSAR
F133	[2613,2652]	040	FFCFPDSLLTNLALTDMWHEFYFQEMDLQTDNMYLRS KVC

F134	[2654,2661]	008	RSSSHLTV
F135	[2663,2679]	017	VSQSMRAVCLVLKPRTH
F136	[2681,2745]	065	ILPIARMLQIAESNETGQPAMHMTMGAPPTSEYDHMA PFDSRNFLQVSMPQHYSHQLQPTTLQLG
F137	[2747,2797]	051	SQTALQLTIVSAPHYCTHGHTCNHPHLVQESYHSCTY IWTALLASKGIPSH
F138	[2799,2800]	002	НУ
F139	[2802,2838]	037	LYMCTPFIVSKSCIYTLVVLQMMKSALYLAAPGPQSR
F140	[2840,2860]	021	ITHAVISCAKSRSQVTLRTFA
F141	[2862,2888]	027	LLIIVISATVRVYIFVSATTVCVHLYV
F142	[2890,2890]	001	I
F143	[2892,2935]	044	LLHLLLLYPPARPYHQKRGFIYAYLYIYDLCALYRLK RVCWPLF

Marco de lectura 2:

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SGOATTAAAA AAAAANCITS HTFPSPFLSS L*YLTLLSSL LWAGRISSLO
IERHCQHHHH HHHTMLNMMV NICLLLPYLA LLLAPPWKLT *RIS*LASFF
PSLSLSLSMS FAPSA*QCRS SRILVAMLQG SS*RGN*NIH THMALWCLVS
DFFWVRGGGA GEKKRHATRE KRHGN*F*CA OMPRRNFYYI ERSL*KAKKI
DHRPAQLAPL YSITFLPSSF TGNWNFLRFV S*LYFLLLQT DLSCGPSSKV
KEOVAAAPTG SGDROGOGRG KIEIKRIENT TNROVTFCKR RNGLLKKAYE
LSVLCDAEVA LVVFSSRGRL YEYANNR**C IYLYAYLS*I RS*SYTTHRA
GGRVSCLHRP IGPNWSOSOL VAPILISRGR RSKN*LARTR DGEPPSFLWL
TSFSVISTAC CCVSFLRRAC NKGGKKNCHE HLLSAMRISI PLCSSSCLPV
ROAR*GEARC LHRSSTELAV CMCSVVHPOP AFPSILLRAV TLGERKORRE
LIELLWPWWS CLPILAVFMP FPFSPAVLC* *LLTGVTQVW RQGS*CMYIY
AGCRSHTPGD R**NTPINLF FFFCLCRSRS SOLLLVIVVP VGLVOEHASM
KACMSV*GNK EERERERDIK RNCHANSSVS LLHHRLLLFL AKGFIPCATS
LSYS*YSLSL SLSHRITSPI HHVCVCPREY LLISSPEWHT KRLFOEGNOT
ETFFSEVPEO NLLCOTNNNK KN*GAVWFTY L*RNG*LITL NHVCFSPTVI
RYHTKN*YQP IQICYH**SI VNRYHCHLRY IF*TKQHLSS LHTAIFFCRS
TFYF**AMNY R*RRIILSES IRSDPLFHRF RGKTKDLARP VROKNSKEKE
VSLISSCSFO VRSTV*PKKK PLPDTIASLY R*I*DLWGYY LEVYFVODPL
LSDRKGSHDP EPVLSWLANP KFVYEELI*L Y*FL*WISYV EY*WIGPSC*
VLQDLVH*NS WLWTRIL*YG TLSFPSKNP* YMKE*KGAFV LVE*EALVP*
*KENRNFSLG I*PNRIVQFL *NLSLKYPIG LSGTKRVFHE MVNEND*PHT
RFGNK*LSDN EQGIYVFLLK RIY*THNSLD PC*QCQLGII SKWISVVQSF
DNQGHSLLKR NDHYGSDSIE LDPFQIARIR ILDPSQSLFQ FEDPERCFHS
HLRIFAISEY FRLLTMSCHC LIEREKKKSK HTINSKVVMQ IRASYS*PST
RRAELLMTMI VCLGVKNTWP CMHILCLCHL IPGYRVREAC RSMOAKPDGN
PSPFAHSSVP VCVCVRVTGA FVAACADCGQ TAKCPMARPH GQQQRTCPAP
ALAOFLGVYT RSKERWRGFG OSG*GLGKSO ARGMECSLVC LCCVLCALCS
ACSPSCLCCV HSFACWIKHA CPLYCSHPIM *IPVTSCVNN ALATQHRTTR
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GC**GFISLV MSPIER*LAC CTARSSLGFS VLN*VLGTRS ATL*RTDVTS YRA*FDVGAF FFGLLLNTLL PIVYLSGILR TPFSFELSTI RSKL*OTTSV YIYITNM**I TQTS*NIVPP SHRWYTTEL* KKVVINNTKL MYLKCSNRE* YKYSYM*SMH AILFFFF*IF FRSLEKKIYV NSN*LNLSTL LLSFTKKKKG TYGCSNPGGK DVNNCDAEAK DLNAKQQINK HVEVTVLI*F FISYVFLTTQ AFY*HASSFL CLYMDFCRHF LPFRTSLTTS F*FFLE**ES LEEMKLSN*P TWECVGKCSH R*YWPCS*ID VPYIPVCFFP NDERKYKPLS *LVLSIRMNK NINCSYFYAL Y*LTEDVNTY IYMSRHHIYI IYTTTVHKIL GKEETTVADG GTVLAQASDO CILLFACVS* ISLPFTVLFR SYRTCRLHAL FGLATVADP* SOCENVEHHF YITYHPAHR* LAMERDFESS YASLIKLF*N SFOFCVHTVT YMW*YLMFLI KOACVLTPTV GISSLYCSVK STIERYKKAN SDSSNSGTVA EVNAQVKITP ILSVNQFPEL NPGCDWSSQF INLAS*SVYE KSLTQAWSTF SLYCYYAVPL TLSKISRDKK FRAESTGICT MDTLLSPACH TRIVFWTDAS QLYVSWGL*N LLAKPNKTCS TQ*LANKKLR QIKSVSQSSS LYIPSCGTDK CTVRQN*IQK HPDSAYTELN HRWIILRIIM QGQLIESDPA VLDTVPTSI* YIFQL*RFSR LWKSVSLSPH EIKEN*ELLH GDLMIIKVS* FYGLSIDVYL LNKHAWLSDD KIT*TYGCLD SHTHT*RYSE AYMVCNRMAY LNVFYFMYEV HIRASLRLQT ASLPLYIYLV FYGHYYVVGL KIMLVFIWAN PKKCMHTDHV QRYLVYIYNY LYHKLNLEMI RNFTVLPN** FHMHVVR*YI MNNSSQFKQV *TFSGMFLFI FYTTFLQEQL LIPISRSSIC *LVTSIPVNL QYYQQESSKL ROMIHSLONA NT*ILOIOYG CICFVLTSLT VKSVWYMOPN LFRWSSRNIV GDSIHTMGLR DLKQMEGKLE KAIIKIRARK VCSINCGTDI *NIL*AEYMH VOPSFTSOFK CILL*LHRFO RT*TNNPPPP PPPOOOKKIL OY*K*AL*NK W*KCLPLQVI ESMRNYIIDF DFVLNC**AI NMVFLACRMS CYTLKLTICK KGLV*FSDPL HASSFVSPTV Y*PTSLLLTC GMNFIFRRWI CRLTTCT*GA RYVNAVVAIS PSESLRACVO SAWSLNHAHT ESFPLHGCCR SLRVMKRGSR RCT*RWERRR RASTTTWPLS TRETFCK*AC LSTTPISCNL QPSSSGNPKQ PFS*QLSQLH TTAHTVTHAI IHIWCRSLTT VAHTYGLHY* LAREYQVISI INCICVHRLL YLNPVYTHWW CCR**NQRYT WRRPAPNRDR SRMQLYHVPN RDLK*LYVRL LNY**L*LVO LLGYIYL*VP PLCACICTCE FSCCIYYYCT LRPGHIIRNA GLFTHTYIYM ICVLYID*KE YVGLSSE

Fragmento	Posición	Longitud	Secuencia
F001	[0000,0030]	031	SGQATTAAAAAAAAANCITSHTFPSPFLSSL
F002	[0032,0089]	058	YLTLLSSLLWAGRISSLQIERHCQHHHHHHHHTMLNMM VNICLLLPYLALLLAPPWKLT
F003	[0091,0093]	003	RIS
F004	[0095,0114]	020	LASFFPSLSLSLSMSFAPSA
F005	[0116,0131]	016	QCRSSRILVAMLQGSS
F006	[0133,0135]	003	RGN
F007	[0137,0174]	038	NIHTHMALWCLVSDFFWVRGGGAGEKKRHATREKRHG N
F008	[0176,0176]	001	F
F009	[0178,0193]	016	CAQMPRRNFYYIERSL

F010	[0195,0230]	036	KAKKIDHRPAQLAPLYSITFLPSSFTGNWNFLRFVS
F011	[0232,0326]	095	LYFLLLQTDLSCGPSSKVKEQVAAAPTGSGDRQGQGR
			GKIEIKRIENTTNRQVTFCKRRNGLLKKAYELSVLCD AEVALVVFSSRGRLYEYANNR
F012	[0329,0337]	009	CIYLYAYLS
F013	[0339,0341]	003	IRS
F014	[0343,0383]	041	SYTTHRAGGRVSCLHRPIGPNWSQSQLVAPILISRGR RSKN
F015	[0385,0453]	069	LARTRDGEPPSFLWLTSFSVISTACCCVSFLRRACNK GGKKNCHEHLLSAMRISIPLCSSSCLPVRQAR
F016	[0455,0528]	074	GEARCLHRSSTELAVCMCSVVHPQPAFPSILLRAVTL GERKQRRELIELLWPWWSCLPILAVFMPFPFSPAVLC
F017	[0531,0543]	013	LLTGVTQVWRQGS
F018	[0545,0560]	016	CMYIYAGCRSHTPGDR
F019	[0563,0605]	043	NTPINLFFFFCLCRSRSSQLLLVIVVPVGLVQEHASM KACMSV
F020	[0607,0653]	047	GNKEERERERDIKRNCHANSSVSLLHHRLLLFLAKGF IPCATSLSYS
F021	[0655,0721]	067	YSLSLSHRITSPIHHVCVCPREYLLISSPEWHTKR LFQEGNQTETFFSEVPEQNLLCQTNNNKKN
F022	[0723,0730]	008	GAVWFTYL
F023	[0732,0734]	003	RNG
F024	[0736,0755]	020	LITLNHVCFSPTVIRYHTKN
F025	[0757,0765]	009	YQPIQICYH
F026	[0768,0781]	014	SIVNRYHCHLRYIF
F027	[0783,0803]	021	TKQHLSSLHTAIFFCRSTFYF
F028	[0806,0810]	005	AMNYR
F029	[0812,0864]	053	RRIILSESIRSDPLFHRFRGKTKDLARPVRQKNSKEK EVSLISSCSFQVRSTV
F030	[0866,0880]	015	PKKKPLPDTIASLYR
F031	[0882,0882]	001	I
F032	[0884,0927]	044	DLWGYYLEVYFVQDPLLSDRKGSHDPEPVLSWLANPK FVYEELI
F033	[0929,0930]	002	LY
F034	[0932,0933]	002	FL
F035	[0935,0941]	007	WISYVEY
F036	[0943,0948]	006	WIGPSC
F037	[0950,0956]	007	VLQDLVH
F038	[0958,0966]	009	NSWLWTRIL
F039	[0968,0978]	011	YGTLSFPSKNP
F040	[0980,0983]	004	YMKE
F041	[0985,0992]	008	KGAFVLVE
F042	[0994,0998]	005	EALVP
F043	[1001,1010]	010	KENRNFSLGI
F044	[1012,1019]	008	PNRIVQFL
F045	[1021,1045]	025	NLSLKYPIGLSGTKRVFHEMVNEND
F046	[1047,1054]	008	PHTRFGNK
F047	[1056,1072]	017	LSDNEQGIYVFLLKRIY
F048	[1074,1081]	008	THNSLDPC

F049	[1083,1195]	113	QCQLGIISKWISVVQSFDNQGHSLLKRNDHYGSDSIE LDPFQIARIRILDPSQSLFQFEDPERCFHSHLRIFAI SEYFRLLTMSCHCLIEREKKKSKHTINSKVVMQIRAS YS
F050	[1197,1322]	126	PSTRRAELLMTMIVCLGVKNTWPCMHILCLCHLIPGY RVREACRSMQAKPDGNPSPFAHSSVPVCVCVRVTGAF VAACADCGQTAKCPMARPHGQQQRTCPAPALAQFLGV YTRSKERWRGFGQSG
F051	[1324,1379]	056	GLGKSQARGMECSLVCLCCVLCALCSACSPSCLCCVH SFACWIKHACPLYCSHPIM
F052	[1381,1401]	021	IPVTSCVNNALATQHRTTRGC
F053	[1404,1415]	012	GFISLVMSPIER
F054	[1417,1432]	016	LACCTARSSLGFSVLN
F055	[1434,1442]	009	VLGTRSATL
F056	[1444,1452]	009	RTDVTSYRA
F057	[1454,1493]	040	FDVGAFFFGLLLNTLLPIVYLSGILRTPFSFELSTIR SKL
F058	[1495,1506]	012	QTTSVYIYITNM
F059	[1509,1513]	005	ITQTS
F060	[1515,1528]	014	NIVPPSHRWYTTEL
F061	[1530,1548]	019	KKVVINNTKLMYLKCSNRE
F062	[1550,1555]	006	YKYSYM
F063	[1557,1566]	010	SMHAILFFFF
F064	[1568,1582]	015	IFFRSLEKKIYVNSN
F065	[1584,1637]	054	LNLSTLLLSFTKKKKGTYGCSNPGGKDVNNCDAEAKD LNAKQQINKHVEVTVLI
F066	[1639,1652]	014	FFISYVFLTTQAFY
F067	[1654,1680]	027	HASSFLCLYMDFCRHFLPFRTSLTTSF
F068	[1682,1685]	004	FFLE
F069	[1688,1697]	010	ESLEEMKLSN
F070	[1699,1710]	012	PTWECVGKCSHR
F071	[1712,1716]	005	YWPCS
F072	[1718,1739]	022	IDVPYIPVCFFPNDERKYKPLS
F073	[1741,1760]	020	LVLSIRMNKNINCSYFYALY
F074	[1762,1818]	057	LTEDVNTYIYMSRHHIYIIYTTTVHKILGKEETTVAD GGTVLAQASDQCILLFACVS
F075	[1820,1848]	029	ISLPFTVLFRSYRTCRLHALFGLATVADP
F076	[1850,1868]	019	SQCENVEHHFYITYHPAHR
F077	[1870,1887]	018	LAMERDFESSYASLIKLF
F078	[1889,1902]	014	NSFQFCVHTVTYMW
F079	[1904,1984]	081	YLMFLIKQACVLTPTVGISSLYCSVKSTIERYKKANS DSSNSGTVAEVNAQVKITPILSVNQFPELNPGCDWSS QFINLAS
F080	[1986,2057]	072	SVYEKSLTQAWSTFSLYCYYAVPLTLSKISRDKKFRA ESTGICTMDTLLSPACHTRIVFWTDASQLYVSWGL
F081	[2059,2071]	013	NLLAKPNKTCSTQ
F082	[2073,2105]	033	LANKKLRQIKSVSQSSSLYIPSCGTDKCTVRQN
F083	[2107,2148]	042	IQKHPDSAYTELNHRWIILRIIMQGQLIESDPAVLDT VPTSI
F084	[2150,2154]	005	YIFQL
F085	[2156,2174]	019	RFSRLWKSVSLSPHEIKEN

F086	[2176,2188]	013	ELLHGDLMIIKVS
F087	[2190,2212]	023	FYGLSIDVYLLNKHAWLSDDKIT
F088	[2214,2224]	011	TYGCLDSHTHT
F089	[2226,2327]	102	RYSEAYMVCNRMAYLNVFYFMYEVHIRASLRLQTASL PLYIYLVFYGHYYVVGLKIMLVFIWANPKKCMHTDHV QRYLVYIYNYLYHKLNLEMIRNFTVLPN
F090	[2330,2336]	007	FHMHVVR
F091	[2338,2349]	012	YIMNNSSQFKQV
F092	[2351,2379]	029	TFSGMFLFIFYTTFLQEQLLIPISRSSIC
F093	[2381,2411]	031	LVTSIPVNLQYYQQESSKLRQMIHSLQNANT
F094	[2413,2489]	077	ILQIQYGCICFVLTSLTVKSVWYMQPNLFRWSSRNIV GDSIHTMGLRDLKQMEGKLEKAIIKIRARKVCSINCG TDI
F095	[2491,2493]	003	NIL
F096	[2495,2513]	019	AEYMHVQPSFTSQFKCILL
F097	[2515,2521]	007	LHRFQRT
F098	[2523,2541]	019	TNNPPPPPPQQQKKILQY
F099	[2543,2543]	001	K
F100	[2545,2546]	002	AL
F101	[2548,2550]	003	NKW
F102	[2552,2575]	024	KCLPLQVIESMRNYIIDFDFVLNC
F103	[2578,2603]	026	AINMVFLACRMSCYTLKLTICKKGLV
F104	[2605,2620]	016	FSDPLHASSFVSPTVY
F105	[2622,2646]	025	PTSLLLTCGMNFIFRRWICRLTTCT
F106	[2648,2702]	055	GARYVNAVVAISPSESLRACVQSAWSLNHAHTESFPL HGCCRSLRVMKRGSRRCT
F107	[2704,2726]	023	RWERRRASTTTWPLSTRETFCK
F108	[2728,2752]	025	ACLSTTPISCNLQPSSSGNPKQPFS
F109	[2754,2788]	035	QLSQLHTTAHTVTHAIIHIWCRSLTTVAHTYGLHY
F110	[2790,2822]	033	LAREYQVISIINCICVHRLLYLNPVYTHWWCCR
F111	[2825,2853]	029	NQRYTWRRPAPNRDRSRMQLYHVPNRDLK
F112	[2855,2862]	008	LYVRLLNY
F113	[2865,2865]	001	L
F114	[2867,2876]	010	LVQLLGYIYL
F115	[2878,2926]	049	VPPLCACICTCEFSCCIYYYCTLRPGHIIRNAGLFTH TYIYMICVLYID
F116	[2928,2936]	009	KEYVGLSSE

Marco de lectura 3:

Secuencia:

QVRPPLQQQQ QLLLLTASPH ILSPLPSSAP FNTSPSSPPF SGLAGSLPCR SRGTANTTTT TTTPCST*W* IFASCCLILL CC*LLPGN*H NGSAS*LPFS PLSLSLYLCL LHHLRSSVGV VGSWLLCCKD LAREATRTYI HTWLSGVWSL IFFGCVGVVR GKKKDTPQER RGMEINFDAP RCLGGISTI* KGPYRKPRRS TTGQHSSRRY TPSPSFLPPL LEIGISCALL VNYISFFSRL I*AAGRRPRS

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RSRWRRRRA PATGRGRGEA RSRSSASRTR RTGR*PSASA ATACSRRRTS
SRCSATPRSR SSSSPAAAAS TSTPTTGDDA YICTRILVRL DPSRTLHTAR
AGGSAVCTVR LVPIGARASS SLPS*FLEAE EARTS*RGRG MGSRHLSCG*
LHSLLYOPHA AVSRS*EEHA TKGERKIATN TSFLRCGFPF PFALAPACL*
GKQGEVRLDV CIDLVQSLLY ACVV*CILSR PFLRSCCEL* LWESASKGES
*SSFFGHGGP ASLFLLYLCP FLSHRPCCAS SSSRV*HRCG DKGADACIYM
QAVDLTHPVI DNEILLSICF FFFACVEADL ASSFLLLLYR LVWYKSMRP*
KRV*VCEVTR KREREREI*K GTAMPTLQFL SCIIVSFCS* PRASSHVLPL
SHTHSTLSLS LSLIASHHOF TMCVCVHGST C*FHHLSGTP RDYFKRETKO
KHFSVKSONR ICFAKLIIIR RTKVPFGSHI CNVMGN**R* IMFVLVOP*S
DTTLKIDTNL FKFVTTSNLS *TVTIAICVT FFEPNSI*VR YTLOSFSVGA
PSTSNRP*TI DREESF*ASP *EATHFFIGS GGRPKILRDR SARKTQKRKK
SR*SLHARSK FEVPFDQRKS RFLTRLPLYI DRYRIYGVIT *KSILYKIPS
YLIEKGPMIP SRSYLGSQTP SLSMKS*SNC ISFYNGFLTW NTNG*GLVAK
CYKI*CTRTR GYGPESFSME HCLFOVKTPS I*KNEKVLSF LWNKKPSYLN
ERKIGIFR*V FDQIGLSSSY RTYH*NTR*G *AERKGFSMR W*MKTISPTR
GLGISDCLIM SKEYTSFC*R ESIKLIIH*I LVSNVN*VS* VNGSRLFNPL
ITKVILC*RE MITMGQTQ*N WIHSK*RELG FLIPLSLSFN SRIRRGVFIV
ISEYLPSPNI FDY*Q*AVIV **RERKKNQN TQLIVR**CK *EPAIADRLH
AELSFS*L*S YVWE*RTRGH ACIYCVCVIS SLAIGYVKRA GACKQNLMET
LLRSLIALCL CVCVCA*LVP LWRPVRTADR LLNAOWHGRM GSSSGPVLHL
HWRSSWESTR GVKNAGVVSV RVVKAWVKAK LEAWSALWCV CAVSCVHCAV
RALHPAFAAS TRLPVG*NMH AHCTVPTOSC EFL*PAA*TT HWPPNTALLE
DASKASSLW* *VRSRGSLLA ALQGALLDSR SLIEFLEHAA PPCDALM*HH
IVLNLMLELF FLACCLIHYC RLFIYRVFYA HHLVSSYQQ* GQNYNKLLLF
IYI*LICDE* RKLART*FPP HIVGILLNSK KK***TION* CI*SVVTESD
ISIHTCKACM PFFFSFSEYF FDL*RRRSM* IRTS*TYPPC YFLLPKKKKA
PMDAPIRGER M*IIVMQRPK I*MQSSK*TN MWK*RS*SSS SFLMFF*QHK
HFISMRLVFS ACIWIFAVIF YPLGLV*OPH FNFS*NNKNL LKK*SCOTSP
RGSVWENVHI DNIGRVAESM CHIFLCAFSL TMKGSISPLV NWCCOYA*TR
TLTAAISTHY ID*LKMSIHI YICLDIIYIS YIQRQCTRFS VKKKPL*LTV
ARC*HRLRTN VFYCSPVSLE FLCLLLYCSG HTEPADCMHY SA*LLLOTLN
LSVKMLNIIF T*HIIPPIDS *QWNGILNHL MLA*LNCSET VSSFVYTQLR
TCGNT*CS*L SKRAC*LRQW AYHHYIAV*S PPLRGTRRPT VTPPTLAQLQ
KSMPR*KSRO SFRSINFLS* ILDVTGVVNS *I*LASOSMR NP*RKLGOHS
LFTVTTPCL* L*ARSPETRN SEOKVRAFAO WILC*VLRVI LGLSFGPMPH
SFMSVGDCEI F*PNQTKHVV RNSSQTRSSD KLNLCHNQVL YISPLAVLIN
ALSARIRFKS TOIOHTLS*T TDGLYSVLLC KVNSLSLTRO Y*10Y0H0FS
ISSNSSALAD FGSQFPCLHM K*KKTENSCM VI****RSLD FMD*VLMCIY
*INMHGYLMT KLPELMDVWT VTLTHKDIVK HIWCAIVWLT *MFSILCMKF
ISEPRSDCKL HLSLSIYTWF FMGITM*SV* KSC*YSYGOI LRNACIPIMY
KGI*YTYIII YTTN*I*K*L GTSLCYQTSD FTCML*DSIS *ITPPSSNKS
KHSLACFFLF SILLSCKNSY SSQ*AEALFA DWLHPYL*TC STTSRSPPSC
DR*STACKTQ TRKFYKFNMD VYVLF*LH*Q *KACGICSLT CLDGLVGT*W
EIPSTPWASG ILNKWRASWR KP*SRLELER YAALTVVQIY KTFYRQSTCM
CNLLLPASLN AYYYSSIDFR EPEPTTPPPP PPPNNKKKSY SIESRPYRIN
GRNACRCRLS NL*GIT*LIL TLC*TADEOL TWSFLHAE*A AIR*S*LYAK
KG*CSSATLC TLVLLFPRQF INQPRSY*HV A*ILFSGDGS AD*QHVPEEQ
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GMLTQ**PSH RLSLSEHACS LPGP*TTHTL NPSHCTDAAD R*E**NGAAG DAHDDGSAAD ERVRPHGPFR LEKLSASEHA SALLPSAATY NPPARVIPNS PSVNNCLSST LLHTRSHMQS STFGAGVLPQ LHIHMDCIIS *QGNTKSLAL LIVYVYTVYC I*ILYIHTGG AADDEISAIP GGARPPIEID HACSYIMCQI EISSNSTYVC LIINNCD*CN C*GIYICECH HCVRAFVRVN LAVASTTIVP SGQAISSETR VYLRILIYI* FVCFI*IEKS MLASLL

Fragmento	Posición	Longitud	Secuencia
F001	[0000,0066]	67	QVRPPLQQQQQLLLLTASPHILSPLPSSAPFNTSPSS PPFSGLAGSLPCRSRGTANTTTTTTTPCST
F002	[0068,0068]	01	W
F003	[0070,0081]	12	IFASCCLILLCC
F004	[0083,0087]	05	LLPGN
F005	[0089,0094]	06	HNGSAS
F006	[0096,0188]	93	LPFSPLSLSLYLCLLHHLRSSVGVVGSWLLCCKDLAR EATRTYIHTWLSGVWSLIFFGCVGVVRGKKKDTPQER RGMEINFDAPRCLGGISTI
F007	[0190,0240]	51	KGPYRKPRRSTTGQHSSRRYTPSPSFLPPLLEIGISC ALLVNYISFFSRLI
F008	[0242,0283]	42	AAGRRPRSRSRWRRRRRAPATGRGRGEARSRSSASRT RRTGR
F009	[0285,0373]	89	PSASAATACSRRRTSSRCSATPRSRSSSSPAAAASTS TPTTGDDAYICTRILVRLDPSRTLHTARAGGSAVCTV RLVPIGARASSSLPS
F010	[0375,0384]	10	FLEAEEARTS
F011	[0386,0398]	13	RGRGMGSRHLSCG
F012	[0400,0414]	15	LHSLLYQPHAAVSRS
F013	[0416,0448]	33	EEHATKGERKIATNTSFLRCGFPFPFALAPACL
F014	[0450,0473]	24	GKQGEVRLDVCIDLVQSLLYACVV
F015	[0475,0488]	14	CILSRPFLRSCCEL
F016	[0490,0499]	10	LWESASKGES
F017	[0501,0534]	34	SSFFGHGGPASLFLLYLCPFLSHRPCCASSSSRV
F018	[0536,0598]	63	HRCGDKGADACIYMQAVDLTHPVIDNEILLSICFFFF ACVEADLASSFLLLLYRLVWYKSMRP
F019	[0600,0602]	03	KRV
F020	[0604,0617]	14	VCEVTRKREREREI
F021	[0619,0638]	20	KGTAMPTLQFLSCIIVSFCS
F022	[0640,0680]	41	PRASSHVLPLSHTHSTLSLSLSLIASHHQFTMCVCVH GSTC
F023	[0682,0735]	54	FHHLSGTPRDYFKRETKQKHFSVKSQNRICFAKLIII RRTKVPFGSHICNVMGN
F024	[0738,0738]	01	R
F025	[0740,0747]	08	IMFVLVQP
F026	[0749,0769]	21	SDTTLKIDTNLFKFVTTSNLS
F027	[0771,0786]	16	TVTIAICVTFFEPNSI
F028	[0788,0806]	19	VRYTLQSFSVGAPSTSNRP

F060 [1384,1386] 03 PAA F061 [1388,1408] 21 TTHWPPNTALLEDASKASSLW				
F031	F029	[0808,0815]	08	TIDREESF
F032	F030	[0817,0819]	03	ASP
F033	F031	[0821,0851]	31	EATHFFIGSGGRPKILRDRSARKTQKRKKSR
F034 [0927,0943] 17 SNCISPYNGPLTWNTNG F035 [0995,0980] 26 CIVARCYKI F036 [0995,0980] 26 CIVARCYKI F037 [0992,1007] 26 KNEKVLSFLWNKKPSYLNERKIGIFR F038 [1009,1023] 15 VFDQIGLSSSYRTH F039 [1025,1027] 03 NTR F040 [1029,1029] 01 G F041 [1031,1040] 10 AERKGFSMRW F042 [1042,1067] 26 MKTISPYRGIGISDCLIMSKEYTSFC F043 [1069,1077] 09 RESIKLITH F044 [1079,1085] 07 ILVSNVN F045 [1087,1088] 02 VS F046 [1090,1106] 17 VNGSRLFNPLITKVILC F047 [1108,1117] 10 REMITMGOTQ F048 [119,1124] 06 NWIHSK F049 [1126,1162] 37 RELIGIPLIPLSISFNSRIRRGVFIVISEYLPSPNIFDY F050 [1166,1169] 04 AVIV F051 [1166,1169] 04 AVIV F052 [1172,1185] 14 RERKKNONTOLIVR F053 [1188,1189] 02 CK F054 [1191,1205] 15 EPAIADRLHAELSFS F055 [1207,1207] 01 L F056 [1209,1213] 05 STYNGE F057 [1215,1265] 51 RTNGRACTYCVCVISSLAIGYVKRAGACKONLMETLL F059 [1367,1382] 16 NNHARCTYPTOSCEFL F060 [1384,1386] 03 PAA F061 [1388,1408] 21 TTHMPPNTALLEDASKASSLW F062 [1411,1446] 36 VRSRGSLAALQGALLDSRSLIEFLEHAAPPCDALM F063 [1448,1488] 41 HHIVLINIMLELFFLACCLIHYCRLFTYRYFYAHHLVS F064 [1490,1502] 13 GONYKLLLFTYI F066 [1510,1515] 06 RRLART F067 [1517,1531] 5 FPPHIVGILINSKKK F068 [1535,1538] 04 TTON F069 [1540,1541] 02 CI F070 [1543,1572] 30 SVYTESDISIHTCKACMPPFFSFSEYPFDL F070 [1543,1573] 05 RRSSM F071 [1574,1578] 05 RRSSM F072 [1580,1583] 04 RTSS	F032	[0853,0889]	37	SLHARSKFEVPFDQRKSRFLTRLPLYIDRYRIYGVIT
F035 [0945,0953] 09	F033	[0891,0925]	35	KSILYKIPSYLIEKGPMIPSRSYLGSQTPSLSMKS
F036 (0955,0980) 26	F034	[0927,0943]	17	SNCISFYNGFLTWNTNG
F037	F035	[0945,0953]	09	GLVAKCYKI
F038	F036	[0955,0980]	26	CTRTRGYGPESFSMEHCLFQVKTPSI
F039	F037	[0982,1007]	26	KNEKVLSFLWNKKPSYLNERKIGIFR
F040	F038	[1009,1023]	15	VFDQIGLSSSYRTYH
F041	F039	[1025,1027]	03	NTR
F042 [1042,1067] 26 MKTISPTRGLGISDCLIMSKEYTSFC F043 [1069,1077] 09 RESIKLIIH F044 [1079,1085] 07 ILVSNIVN F045 [1087,1088] 02 VS F046 [1089,1106] 17 VNGSRLFNPLITKVILC F047 [1108,1117] 10 REMITMGQTQ F048 [1119,1124] 06 NNIHSK F049 [1126,1162] 37 RELGFLIPLSLSFNSRIRRGVFIVISEYLPSPNIFDY F050 [1164,1164] 01 Q F051 [1166,1169] 04 AVIV F052 [1172,1185] 14 RERKKNONTQLIVR F053 [1188,1189] 02 CK F053 [1188,1189] 02 CK F056 [1209,1213] 05 SYVWE F057 [1215,1265] 51 RTRGHACIYCVCVISSLAIGYVKRAGACKQNLMETLL RSLIALCLCVCVCA F058 [1267,1365] 99 LVPLWRPVRTADRLINAQWHGRMGSSSGPVLHLHWRS SWESTRGVKNAGVSVRVVKAWKAKLEAWSALWCVC AVSCVHCAVRALHPAFAASTRLPVG F060 [1384,1386] 03 PAA F061 [1388,1408] 21 TTHWPPNTALLEDASKASSLW F062 [1411,1446] 36 VRSRGSLLAALQGALLDSRSLIEFLEHAAPPCDALM F063 [1448,1488] 41 HHIVLIMLELFFLACCLIHYCRLFIYRVFYAHLLVS SYQQ F064 [1490,1502] 13 GONYNKLLFIYI F066 [1510,1515] 06 RKLART F067 [1517,1531] 15 FPPHIVGILINSKKK F068 [1535,1538] 04 TIQN F069 [1540,1541] 02 CI F070 [1543,1572] 30 SVVVESDISHTCKACMPFFFSFSEYFFDL F0772 [1580,1583] 04 IRTS	F040	[1029,1029]	01	G
F044	F041	[1031,1040]	10	AERKGFSMRW
F044 [1079,1085] 07	F042	[1042,1067]	26	MKTISPTRGLGISDCLIMSKEYTSFC
F045	F043	[1069,1077]	09	RESIKLIIH
F046	F044	[1079,1085]	07	ILVSNVN
F047	F045	[1087,1088]	02	VS
F048	F046	[1090,1106]	17	VNGSRLFNPLITKVILC
F049	F047	[1108,1117]	10	REMITMGQTQ
F050	F048	[1119,1124]	06	NWIHSK
F051	F049	[1126,1162]	37	RELGFLIPLSLSFNSRIRRGVFIVISEYLPSPNIFDY
F052	F050	[1164,1164]	01	Q
F053	F051	[1166,1169]	04	AVIV
F054	F052	[1172,1185]	14	RERKKNONTOLIVR
F055	F053	[1188,1189]	02	CK
F056	F054	[1191,1205]	15	EPAIADRLHAELSFS
F057	F055	[1207,1207]	01	L
RSLIALCLCVCVCA	F056	[1209,1213]	05	SYVWE
SWESTRGVKNAGVVSVRVKAWVKAKLEAWSALWCVC AVSCVHCAVRALHPAFAASTRLPVG	F057	[1215,1265]	51	~
F060 [1384,1386] 03 PAA F061 [1388,1408] 21 TTHWPPNTALLEDASKASSLW F062 [1411,1446] 36 VRSRGSLLAALQGALLDSRSLIEFLEHAAPPCDALM F063 [1448,1488] 41 HHIVLNLMLELFFLACCLIHYCRLFIYRVFYAHHLVS SYQQ F064 [1490,1502] 13 GQNYNKLLLFIYI F065 [1504,1508] 05 LICDE F066 [1510,1515] 06 RKLART F067 [1517,1531] 15 FPPHIVGILLNSKKK F068 [1535,1538] 04 TIQN F069 [1540,1541] 02 CI F070 [1543,1572] 30 SVVTESDISIHTCKACMPFFFSFSEYFFDL F071 [1574,1578] 05 RRRSM F072 [1580,1583] 04 IRTS	F058	[1267,1365]	99	SWESTRGVKNAGVVSVRVVKAWVKAKLEAWSALWCVC
F061 [1388,1408] 21 TTHWPPNTALLEDASKASSLW F062 [1411,1446] 36 VRSRGSLLAALQGALLDSRSLIEFLEHAAPPCDALM F063 [1448,1488] 41 HHIVLNLMLELFFLACCLIHYCRLFIYRVFYAHHLVS SYQQ F064 [1490,1502] 13 GQNYNKLLLFIYI F065 [1504,1508] 05 LICDE F066 [1510,1515] 06 RKLART F067 [1517,1531] 15 FPPHIVGILLNSKKK F068 [1535,1538] 04 TIQN F069 [1540,1541] 02 CI F070 [1543,1572] 30 SVVTESDISIHTCKACMPFFFSFSEYFFDL F071 [1574,1578] 05 RRRSM F072 [1580,1583] 04 IRTS	F059	[1367,1382]	16	NMHAHCTVPTQSCEFL
F062 [1411,1446] 36 VRSRGSLLAALQGALLDSRSLIEFLEHAAPPCDALM F063 [1448,1488] 41 HHIVLNLMLELFFLACCLIHYCRLFIYRVFYAHHLVS SYQQ F064 [1490,1502] 13 GQNYNKLLLFIYI F065 [1504,1508] 05 LICDE F066 [1510,1515] 06 RKLART F067 [1517,1531] 15 FPPHIVGILLNSKKK F068 [1535,1538] 04 TIQN F069 [1540,1541] 02 CI F070 [1543,1572] 30 SVVTESDISIHTCKACMPFFFSFSEYFFDL F071 [1574,1578] 05 RRRSM F072 [1580,1583] 04 IRTS	F060	[1384,1386]	03	PAA
F063	F061	[1388,1408]	21	TTHWPPNTALLEDASKASSLW
F064 [1490,1502] 13 GQNYNKLLLFIYI F065 [1504,1508] 05 LICDE F066 [1510,1515] 06 RKLART F067 [1517,1531] 15 FPPHIVGILLNSKKK F068 [1535,1538] 04 TIQN F069 [1540,1541] 02 CI F070 [1543,1572] 30 SVVTESDISIHTCKACMPFFFSFSEYFFDL F071 [1574,1578] 05 RRRSM F072 [1580,1583] 04 IRTS	F062	[1411,1446]	36	VRSRGSLLAALQGALLDSRSLIEFLEHAAPPCDALM
F065 [1504,1508] 05 LICDE F066 [1510,1515] 06 RKLART F067 [1517,1531] 15 FPPHIVGILLNSKKK F068 [1535,1538] 04 TIQN F069 [1540,1541] 02 CI F070 [1543,1572] 30 SVVTESDISIHTCKACMPFFFSFSEYFFDL F071 [1574,1578] 05 RRRSM F072 [1580,1583] 04 IRTS	F063	[1448,1488]	41	
F066 [1510,1515] 06 RKLART F067 [1517,1531] 15 FPPHIVGILLNSKKK F068 [1535,1538] 04 TIQN F069 [1540,1541] 02 CI F070 [1543,1572] 30 SVVTESDISIHTCKACMPFFFSFSEYFFDL F071 [1574,1578] 05 RRRSM F072 [1580,1583] 04 IRTS	F064	[1490,1502]	13	GQNYNKLLLFIYI
F067 [1517,1531] 15 FPPHIVGILLNSKKK F068 [1535,1538] 04 TIQN F069 [1540,1541] 02 CI F070 [1543,1572] 30 SVVTESDISIHTCKACMPFFFSFSEYFFDL F071 [1574,1578] 05 RRRSM F072 [1580,1583] 04 IRTS	F065	[1504,1508]	05	LICDE
F068 [1535,1538] 04 TIQN F069 [1540,1541] 02 CI F070 [1543,1572] 30 SVVTESDISIHTCKACMPFFFSFSEYFFDL F071 [1574,1578] 05 RRRSM F072 [1580,1583] 04 IRTS	F066	[1510,1515]	06	RKLART
F069 [1540,1541] 02 CI F070 [1543,1572] 30 SVVTESDISIHTCKACMPFFFSFSEYFFDL F071 [1574,1578] 05 RRRSM F072 [1580,1583] 04 IRTS	F067	[1517,1531]	15	FPPHIVGILLNSKKK
F070 [1543,1572] 30 SVVTESDISIHTCKACMPFFFSFSEYFFDL F071 [1574,1578] 05 RRRSM F072 [1580,1583] 04 IRTS	F068	[1535,1538]	04	TIQN
F071 [1574,1578] 05 RRRSM F072 [1580,1583] 04 IRTS	F069	[1540,1541]	02	CI
F071 [1574,1578] 05 RRRSM F072 [1580,1583] 04 IRTS	F070	[1543,1572]	30	SVVTESDISIHTCKACMPFFFSFSEYFFDL
F072 [1580,1583] 04 IRTS	F071	[1574,1578]	05	RRRSM
F073 [1585,1610] 26 TYPPCYFLLPKKKKAPMDAPIRGERM	F072	[1580,1583]	04	IRTS
	F073	[1585,1610]	26	TYPPCYFLLPKKKKAPMDAPIRGERM

F074	[1612,1620]	09	IIVMQRPKI
F075	[1622,1626]	05	MQSSK
F076	[1628,1632]	05	TNMWK
F077	[1634,1635]	02	RS
F078	[1637,1645]	09	SSSSFLMFF
F079	[1647,1675]	29	QHKHFISMRLVFSACIWIFAVIFYPLGLV
F080	[1677,1683]	07	QPHFNFS
F081	[1685,1692]	08	NNKNLLKK
F082	[1694,1746]	53	SCQTSPRGSVWENVHIDNIGRVAESMCHIFLCAFSLT MKGSISPLVNWCCQYA
F083	[1748,1761]	14	TRTLTAAISTHYID
F084	[1763,1795]	33	LKMSIHIYICLDIIYISYIQRQCTRFSVKKKPL
F085	[1797,1802]	06	LTVARC
F086	[1804,1841]	38	HRLRTNVFYCSPVSLEFLCLLLYCSGHTEPADCMHYS A
F087	[1843,1860]	18	LLLQTLNLSVKMLNIIFT
F088	[1862,1869]	08	HIIPPIDS
F089	[1871,1882]	12	QWNGILNHLMLA
F090	[1884,1904]	21	LNCSETVSSFVYTQLRTCGNT
F091	[1906,1907]	02	CS
F092	[1909,1914]	06	LSKRAC
F093	[1916,1927]	12	LRQWAYHHYIAV
F094	[1929,1954]	26	SPPLRGTRRPTVTPPTLAQLQKSMPR
F095	[1956,1968]	13	KSRQSFRSINFLS
F096	[1970,1979]	10	ILDVTGVVNS
F097	[1981,1981]	01	I
F098	[1983,1991]	09	LASQSMRNP
F099	[1993,2008]	16	RKLGQHSLFTVTTPCL
F100	[2010,2010]	01	L
F101	[2012,2033]	22	ARSPETRNSEQKVRAFAQWILC
F102	[2035,2060]	26	VLRVILGLSFGPMPHSFMSVGDCEIF
F103	[2062,2117]	56	PNQTKHVVRNSSQTRSSDKLNLCHNQVLYISPLAVLI NALSARIRFKSTQIQHTLS
F104	[2119,2140]	22	TTDGLYSVLLCKVNSLSLTRQY
F105	[2142,2170]	29	IQYQHQFSISSNSSALADFGSQFPCLHMK
F106	[2172,2181]	10	KKTENSCMVI
F107	[2186,2192]	07	RSLDFMD
F108	[2194,2199]	06	VLMCIY
F109	[2201,2239]	39	INMHGYLMTKLPELMDVWTVTLTHKDIVKHIWCAIVW LT
F110	[2241,2275]	35	MFSILCMKFISEPRSDCKLHLSLSIYTWFFMGITM
F111	[2277,2278]	02	SV
F112	[2280,2282]	03	KSC
F113	[2284,2302]	19	YSYGQILRNACIPIMYKGI
F114	[2304,2313]	10	YTYIIIYTTN
F115	[2315,2315]	01	I
F116	[2317,2317]	01	K
F117	[2319,2334]	16	LGTSLCYQTSDFTCML
F118	[2336,2339]	04	DSIS

F119	[2341,2372]	32	ITPPSSNKSKHSLACFFLFSILLSCKNSYSSQ
F120	[2374,2386]	13	AEALFADWLHPYL
F121	[2388,2401]	14	TCSTTSRSPPSCDR
F122	[2403,2424]	22	STACKTQTRKFYKFNMDVYVLF
F123	[2426,2427]	02	LH
F124	[2429,2429]	01	Q
F125	[2431,2447]	17	KACGICSLTCLDGLVGT
F126	[2449,2471]	23	WEIPSTPWASGILNKWRASWRKP
F127	[2473,2561]	89	SRLELERYAALTVVQIYKTFYRQSTCMCNLLLPASLN AYYYSSIDFREPEPTTPPPPPPPNNKKKSYSIESRPY RINGRNACRCRLSNL
F128	[2563,2565]	03	GIT
F129	[2567,2572]	06	LILTLC
F130	[2574,2587]	14	TADEQLTWSFLHAE
F131	[2589,2592]	04	AAIR
F132	[2594,2594]	01	S
F133	[2596,2601]	06	LYAKKG
F134	[2603,2626]	24	CSSATLCTLVLLFPRQFINQPRSY
F135	[2628,2630]	03	HVA
F136	[2632,2641]	10	ILFSGDGSAD
F137	[2643,2654]	12	QHVPEEQGMLTQ
F138	[2657,2673]	17	PSHRLSLSEHACSLPGP
F139	[2675,2690]	16	TTHTLNPSHCTDAADR
F140	[2692,2692]	01	E
F141	[2695,2789]	95	NGAAGDAHDDGSAADERVRPHGPFRLEKLSASEHASA LLPSAATYNPPARVIPNSPSVNNCLSSTLLHTRSHMQ SSTFGAGVLPQLHIHMDCIIS
F142	[2791,2810]	20	QGNTKSLALLIVYVYTVYCI
F143	[2812,2866]	55	ILYIHTGGAADDEISAIPGGARPPIEIDHACSYIMCQ IEISSNSTYVCLIINNCD
F144	[2868,2870]	03	CNC
F145	[2872,2918]	47	GIYICECHHCVRAFVRVNLAVASTTIVPSGQAISSET RVYLRILIYI
F146	[2920,2924]	05	FVCFI
F147	[2926,2935]	10	IEKSMLASLL

Marco de lectura -1:

Secuencia:

FRREANILFS IYIKHTNHIY ISMRK*TRVS DDMAWPEGTI VVDATAKFTR
TNARTQWWHS QIYIP*QLH* SQLLIIKQTY VELLEISIWH MI*LHA*SIS
IGGRAPPGIA LISSSAAPPV CIYRI*IQ*T VYTYTINNAN DLVFPC*LIM
QSICMCNCGK TPAPNVDDCM CDRVCSSVEL RQLLTEGLFG ITRAGGL*VA
ADGSSAEACS LAESFSSRKG PCGRTRSSAA LPSSCASPAA PFHYSQRSAA
SVQWEGFSVC VV*GPGRLHA CSERLRR*DG YYCVNIPCSS GTCCQSADPS
PENKIHATCQ *ERGWLINCR GNKRTSVQRV AELH*PFFAY SQLQRIAAHS

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ACKKDHVNCS SAVQHKVKIN YVIPHRFDNL QRQAFLPFIL *GLLSIL*DF
FLLLGGGGGG GVVGSGSLKS MEL**YAFKL AGKRRLHMHV LCL*NVLYIC
TTVNAAYLSS SNLDYGFLQL ALHLFKIPEA HGVDGISHYV PTRPSKQVRL
HIPHAFYC** SQNKTYTSIL NL*NLRVCVL QAVDHLSQLG GLLLVVLQVY
RYGCNQSANR ASAYWDE*LF LQESSIENKK KHARECLDLF ELGGVIHDIL
SHNMHVKSLV W*HSEVPNHF *I*FVV*III YVY*IPLYMI GMHAFLRICP
YEY*HDF*TD YIVMPIKNQV YIERERCSLQ SERGSDMNFI HKIENIQVSH
TIAHHICFTI SLCVSVTVQT SISSGNFVIR *PCMFIQ*IH INT*SIKSRD
LYYHOITMOE FSVFFYFMWR OGN*LPKSAK ALELEDILN* CWYCI*YCRV
RLNELTLHNN TEYNPSVVOL SVC*IWVLLN LILADSAFIS TARGDI*RT*
L*HRFNLSEL LVCELLRTTC FVWFG*KISO SPTDIKL*GI GPKDNPSMTR
RTQQSIHCAN ARTFCSEFLV SGDLAQSQRH GVVTVKREC* PSLR*GFLID
*LAS*IYELT TPVTSRIQLR KLIDRKDWRD FYLGIDFCNC ARVGGVTVGL
LVPLNGGLHT AI***YAHCR S*HARLLN*E H*VLPHVRNC VYTKLETVSE
OFN*ASIR*F KIPFHC*LSM GGMICYVKMM FNIFTLRLRV CNSS*AE*CM
QSAGSV*PEQ YSKRQRNSRD TGEQ*NTLVR SLC*HRATVS YSGFFFTENL
VHCRCIYDIY MMSRHIYICI DIFSOSI*CV EIAAVNVLVH AY*OHOLTKG
LILPFIVREK AHRNIWHIDS ATRPILSM*T FSHTLPRGLV *QLHFFKRFL
LF*EKLK*GC QTSPKG*KMT AKIHIQAEKT RRMLIKCLCC *KNIRNEELD
*DRYFHMFVY LLLCIQIFGL CITIIYILSP RIGASIGAFF FFGKRK*QGG
*VOLVRIYID LLL*RSKKYS EKEKKNGMHA LHV*ILISLS VTTLOIH*FC
IVYYYFFLEF SSIPTM*GGN YVLASLRYSS HISYIYINRS SLL*F*PYC*
*LETKWCA*N TR*INNRO*C IKOOAKKKSS NIKLSTI*CH ISASOGGAAC
SKNSIKDRES KRAPCSAASK LPLDRTHHQR DEALLASSSS AVLGGQCVVH
AAGHRNSHDW VGTVQWACMF YPTGKRVDAA KAGWRARTAQ CTQDTAQTHQ
RALHASSLAF TOALTTLTET TPAFFTPRVD SOELROCRCR TGPLLLPMRP
CHWAFSSLSA VRTGRHKGTS HAHTHTHRHR AMSERRRVSI RFCLHAPARF
TYPIARDEMT QTQYMHAWPR VLHSQTYDHS HEKLSSACRR SAIAGSYLHY
YLTINCVF*F FFLSLYOTMT AHCO*SKIFG DGKYSEMTMK TPLRILELKE
RLRGIKNPNS RYLEWIOFY* V*PIVIISL* ORMTLVIKGL NNRDPFTYDT
*LTLLTRI** IMSLIDSL*Q KDVYSLLIIR QSLIPKPRVG LIVFIYHLME
NPFRSA*PYR VF***VL*EL DNPIWSNT*R KIPIFLSLRY EGFLFHKNES
TFSFFHILGV FTWKRQCSIL KDSGP*PRVL VH*IL*HLAT RPYPLVFHVR
NPL*KLIOLD *LFIDKLGVC EPR*DRLGIM GPFSIR*EGI LYKIDF*VIT
P*ILYLSI*R GNRVRKRLFL WSNGTSNLER A*RD*RDFFL F*VFLADRSR
KIFGLPPEPM KKWVASYGLA ONDSSLSIVH GLLEVEGAPT EKDCSV*RT*
MLFGSKNVTQ MAMVTVYDRL LVVTNLNRLV SIFSVVSDYG WTKTNMI*RY
*LPITLQICE PNGTLVLLII ISLAKQILFW DFTEKCFCLV SLLK*SLGVP
LR**NQQVLP WTHTHMVNW* CDAMRERERE RVL*V*ERGS TWDEALG*EO
KETMMQERN* RVGMAVPFYI SLSLSLFLVT SHTHTRFHGR MLLYQTNRYN
NNKKELARSA STQAKKKKQI DRSISLSITG CVRSTACIYI HASAPLSPHL
CHTREELLAQ HGR*ERKGHK YSKNREAGPP WPKKLDQLSP LLALSQSHSS
QODRRKGRLR MHYTTHAYSK LCTRSMQTSS LTSPCLPHRQ AGARAKGNGN
PHRRKEVFVA IFLSPFVACS SQERDTAACG *YNRE*SQPQ ERWRLPIPRP
R*LVLASSAS RN*DGSDELA LAPIGTNRTV QTADPPARAV CSVRLGSNLT
KIRVQIYASS PVVGVLVEAA AAGEDDERDL GVAEHRELVR LLEQAVAALA
EGHLPVRRVL DALDLDLASP LPLPVAGARR RRRHLLLDLG RRPAAOISLE
KKEI*LTNKA QEIPISSKGG RKEGDGV*RR ELCWPVVDLL GFL*GPFYIV
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EIPPRHLGAS KLISMPLLSC GVSFFFPRTT PTHPKKIRDQ TPESHVCMYV LVASLARSLQ HSNQDPTTPT LLRRWCKRHR *RERERGEKG S*LADPLC*F PGRS*QQSKI RQQEANIYHH VEHGVVVVVV VLAVPLDLQG RDPASPEKGG EEGEVLKGAE EGRGESM*GD AVSSSSCCCC CSGGLT*

Fragmento	Posición	Longitud	Secuencia
F001	[0000,0024]	025	FRREANILFSIYIKHTNHIYISMRK
F002	[0026,0064]	039	TRVSDDMAWPEGTIVVDATAKFTRTNARTQWWHSQIY
F003	[0066,0068]	003	QLH
F004	[0070,0091]	022	SQLLIIKQTYVELLEISIWHMI
F005	[0093,0095]	003	LHA
F006	[0097,0124]	028	SISIGGRAPPGIALISSSAAPPVCIYRI
F007	[0126,0127]	002	IQ
F008	[0129,0145]	017	TVYTYTINNANDLVFPC
F009	[0147,0196]	050	LIMQSICMCNCGKTPAPNVDDCMCDRVCSSVELRQLL TEGLFGITRAGGL
F010	[0198,0261]	064	VAADGSSAEACSLAESFSSRKGPCGRTRSSAALPSSC ASPAAPFHYSQRSAASVQWEGFSVCVV
F011	[0263,0276]	014	GPGRLHACSERLRR
F012	[0278,0309]	032	DGYYCVNIPCSSGTCCQSADPSPENKIHATCQ
F013	[0311,0333]	023	ERGWLINCRGNKRTSVQRVAELH
F014	[0335,0389]	055	PFFAYSQLQRIAAHSACKKDHVNCSSAVQHKVKINYV IPHRFDNLQRQAFLPFIL
F015	[0391,0396]	006	GLLSIL
F016	[0398,0422]	025	DFFLLLGGGGGGGVVGSGSLKSMEL
F017	[0425,0442]	018	YAFKLAGKRRLHMHVLCL
F018	[0444,0507]	064	NVLYICTTVNAAYLSSSNLDYGFLQLALHLFKIPEAH GVDGISHYVPTRPSKQVRLHIPHAFYC
F019	[0510,0521]	012	SQNKTYTSILNL
F020	[0523,0566]	044	NLRVCVLQAVDHLSQLGGLLLVVLQVYRYGCNQSANR ASAYWDE
F021	[0568,0610]	043	LFLQESSIENKKKHARECLDLFELGGVIHDILSHNMH VKSLVW
F022	[0612,0619]	008	HSEVPNHF
F023	[0621,0621]	001	I
F024	[0623,0625]	003	FVV
F025	[0627,0632]	006	IIIYVY
F026	[0634,0652]	019	IPLYMIGMHAFLRICPYEY
F027	[0654,0656]	003	HDF
F028	[0658,0729]	072	TDYIVMPIKNQVYIERERCSLQSERGSDMNFIHKIEN IQVSHTIAHHICFTISLCVSVTVQTSISSGNFVIR
F029	[0731,0736]	006	PCMFIQ
F030	[0738,0742]	005	IHINT
F031	[0744,0772]	029	SIKSRDLYYHQITMQEFSVFFYFMWRQGN
F032	[0774,0788]	015	LPKSAKALELEDILN

F033	[0790,0794]	005	CWYCI
F034	[0796,0822]	027	YCRVRLNELTLHNNTEYNPSVVQLSVC
F035	[0824,0845]	022	IWVLLNLILADSAFISTARGDI
F036	[0847,0848]	002	RT
F037	[0850,0850]	001	L
F038	[0852,0874]	023	HRFNLSELLVCELLRTTCFVWFG
F039	[0876,0886]	011	KISQSPTDIKL
F040	[0888,0938]	051	GIGPKDNPSMTRRTQQSIHCANARTFCSEFLVSGDLA QSQRHGVVTVKREC
F041	[0940,0943]	004	PSLR
F042	[0945,0949]	005	GFLID
F043	[0951,0953]	003	LAS
F044	[0955,1011]	057	IYELTTPVTSRIQLRKLIDRKDWRDFYLGIDFCNCAR VGGVTVGLLVPLNGGLHTAI
F045	[1015,1020]	006	YAHCRS
F046	[1022,1027]	006	HARLLN
F047	[1029,1030]	002	ЕН
F048	[1032,1052]	021	VLPHVRNCVYTKLETVSEQFN
F049	[1054,1057]	004	ASIR
F050	[1059,1065]	007	FKIPFHC
F051	[1067,1093]	027	LSMGGMICYVKMMFNIFTLRLRVCNSS
F052	[1095,1096]	002	AE
F053	[1098,1105]	008	CMQSAGSV
F054	[1107,1123]	017	PEQYSKRQRNSRDTGEQ
F055	[1125,1132]	008	NTLVRSLC
F056	[1134,1176]	043	HRATVSYSGFFFTENLVHCRCIYDIYMMSRHIYICID IFSOSI
F057	[1178,1191]	014	CVEIAAVNVLVHAY
F058	[1193,1227]	035	QHQLTKGLILPFIVREKAHRNIWHIDSATRPILSM
F059	[1229,1239]	011	TFSHTLPRGLV
F060	[1241,1251]	011	QLHFFKRFLLF
F061	[1253,1256]	004	EKLK
F062	[1258,1265]	008	GCQTSPKG
F063	[1267,1289]	023	KMTAKIHIQAEKTRRMLIKCLCC
F064	[1291,1299]	009	KNIRNEELD
F065	[1301,1345]	045	DRYFHMFVYLLLCIQIFGLCITIIYILSPRIGASIGA FFFFGKRK
F066	[1347,1349]	003	QGG
F067	[1351,1362]	012	VQLVRIYIDLLL
F068	[1364,1382]	019	RSKKYSEKEKKNGMHALHV
F069	[1384,1396]	013	ILISLSVTTLQIH
F070	[1398,1415]	018	FCIVYYYFFLEFSSIPTM
F071	[1417,1442]	026	GGNYVLASLRYSSHISYIYINRSSLL
F072	[1444,1444]	001	F
F073	[1446,1448]	003	PYC
F074	[1451,1457]	007	LETKWCA
F075	[1459,1461]	003	NTR
F076	[1463,1467]	005	INNRO
F077	[1469,1486]	018	CIKQQAKKKSSNIKLSTI
	,	1	

E070	[1400 1757]	270	CITCA COCCA A COUNTOTUDDECUDA DOCA A CUT DI DE
F078	[1488,1757]	270	CHISASQGGAACSKNSIKDRESKRAPCSAASKLPLDR THHQRDEALLASSSSAVLGGQCVVHAAGHRNSHDWVG TVQWACMFYPTGKRVDAAKAGWRARTAQCTQDTAQTH QRALHASSLAFTQALTTLTETTPAFFTPRVDSQELRQ CRCRTGPLLLPMRPCHWAFSSLSAVRTGRHKGTSHAH THTHRHRAMSERRRVSIRFCLHAPARFTYPIARDEMT QTQYMHAWPRVLHSQTYDHSHEKLSSACRRSAIAGSY LHYYLTINCVF
F079	[1759,1773]	015	FFFLSLYQTMTAHCQ
F080	[1775,1818]	044	SKIFGDGKYSEMTMKTPLRILELKERLRGIKNPNSRY LEWIQFY
F081	[1820,1820]	001	V
F082	[1822,1828]	007	PIVIISL
F083	[1830,1849]	020	QRMTLVIKGLNNRDPFTYDT
F084	[1851,1857]	007	LTLLTRI
F085	[1860,1867]	008	IMSLIDSL
F086	[1869,1905]	037	QKDVYSLLIIRQSLIPKPRVGLIVFIYHLMENPFRSA
F087	[1907,1911]	005	PYRVF
F088	[1915,1916]	002	VL
F089	[1918,1927]	010	ELDNPIWSNT
F090	[1929,1974]	046	RKIPIFLSLRYEGFLFHKNESTFSFFHILGVFTWKRQ CSILKDSGP
F091	[1976,1981]	006	PRVLVH
F092	[1983,1984]	002	IL
F093	[1986,2002]	017	HLATRPYPLVFHVRNPL
F094	[2004,2009]	006	KLIQLD
F095	[2011,2022]	012	LFIDKLGVCEPR
F096	[2024,2035]	012	DRLGIMGPFSIR
F097	[2037,2045]	009	EGILYKIDF
F098	[2047,2050]	004	VITP
F099	[2052,2057]	006	ILYLSI
F100	[2059,2080]	022	RGNRVRKRLFLWSNGTSNLERA
F101	[2082,2083]	002	RD
F102	[2085,2090]	006	RDFFLF
F103	[2092,2145]	054	VFLADRSRKIFGLPPEPMKKWVASYGLAQNDSSLSIV HGLLEVEGAPTEKDCSV
F104	[2147,2148]	002	RT
F105	[2150,2196]	047	MLFGSKNVTQMAMVTVYDRLLVVTNLNRLVSIFSVVS DYGWTKTNMI
F106	[2198,2199]	002	RY
F107	[2201,2243]	043	LPITLQICEPNGTLVLLIIISLAKQILFWDFTEKCFC LVSLLK
F108	[2245,2251]	007	SLGVPLR
F109	[2254,2268]	015	NQQVLPWTHTHMVNW
F110	[2270,2282]	013	CDAMRERERERVL
F111	[2284,2284]	001	V
F112	[2286,2296]	011	ERGSTWDEALG
F113	[2298,2308]	011	EQKETMMQERN
F114	[2310,2412]	103	RVGMAVPFYISLSLSLFLVTSHTHTRFHGRMLLYQTN RYNNNKKELARSASTQAKKKKQIDRSISLSITGCVRS TACIYIHASAPLSPHLCHTREELLAQHGR

F115	[2414,2529]	116	ERKGHKYSKNREAGPPWPKKLDQLSPLLALSQSHSSQ QDRRKGRLRMHYTTHAYSKLCTRSMQTSSLTSPCLPH RQAGARAKGNGNPHRRKEVFVAIFLSPFVACSSQERD TAACG
F116	[2531,2534]	004	YNRE
F117	[2536,2550]	015	SQPQERWRLPIPRPR
F118	[2552,2561]	010	LVLASSASRN
F119	[2563,2703]	141	DGSDELALAPIGTNRTVQTADPPARAVCSVRLGSNLT KIRVQIYASSPVVGVLVEAAAAGEDDERDLGVAEHRE LVRLLEQAVAALAEGHLPVRRVLDALDLDLASPLPLP VAGARRRRHLLLDLGRRPAAQISLEKKEI
F120	[2705,2726]	022	LTNKAQEIPISSKGGRKEGDGV
F121	[2728,2742]	015	RRELCWPVVDLLGFL
F122	[2744,2829]	086	GPFYIVEIPPRHLGASKLISMPLLSCGVSFFFPRTTP THPKKIRDQTPESHVCMYVLVASLARSLQHSNQDPTT PTLLRRWCKRHR
F123	[2831,2840]	010	RERERGEKGS
F124	[2842,2847]	006	LADPLC
F125	[2849,2853]	005	FPGRS
F126	[2855,2916]	062	QQSKIRQQEANIYHHVEHGVVVVVVVLAVPLDLQGRD PASPEKGGEEGEVLKGAEEGRGESM
F127	[2918,2935]	018	GDAVSSSSCCCCCSGGLT

Marco de lectura -2:

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SEERPTYSFO SI*STOIIYI *VCVNKPAFL MIWPGRRVO* **MOOLNSHV
QMHAHSGGTH KYIYPNSCTN HNY**LSKRT *SYLRSRFGT *YNCMRDLSR
LGAGRRQV*R *FHHLQHHQC VYTGFRYNKR CTHIQLIMLM TWYSLAS**C
SPYVCATVVR LLHOMWMIAC VTVCAVVWS* DNC*LKGCLG LPELEGCRLO
LMGVVLRHAH LQKVSRVERG HVVVLARRRR SHRHVHRRLP RFITLSDLQH
PCNGKDSVCA WFKDOADCTH ALRDSDGEMA TTALTYLAPO VHVVSLOIHL
LKIKFMPHVS KSEVG**TVG ETKELACRGS LNYTNPFLHI VNFSV*QLIL
HARKTMLIAH QQFNTKSKSI M*FLIDSITC SGRHFYHLFY KAYFQYCRIF
FCCWGGGGGG GLLVQVL*NL WSYSNMHLNW LVKEGCTCMY SAYKMFYISV
POLMLHTFLA LILIMAFSSL PSICLRSLRP MVWMESPTMF LLDHLNKLGC
IYHTLFTVNE VKTKHIHPY* ICRIYVFAFC KLWIICRSLE DSCW*YCKFT
GMDVTSOOIE LLLIGMSNCS CKKVV*KIKR NMPENV*TCL NWEELFMIYY
LTTCM*NH*F GSTVKFLIIS KFNLWYK*LY MYTKYLCT*S VCMHFLGFAH
MNTNMIFKPT T**CP*KTKY I*RGRDAVCS LSEALI*TSY IK*KTFR*AI
RLHTIYASLY LYV*V*LSKH P*VQVILSSD NHACLFNKYT SILNP*NQET
FIIIRSPCKS SQFSFISCGD KETDFQSLLK R*SWKIY*ID VGTVSNTAGS
DSMS*PCIII RSIIHRWFSS VYAESGCF*I *FWRTVHLSV PQEGIYRELD
CDTDLICRSF LFASYCVLHV LFGLAKRFHS PQLT*SCEAS VQKTILV*HA
GLNRVSIVOM PVLSALNFLS LEILLRVRGT A**Q*RENVD QACVKDFS*T
D*LARFMN*L LQSHPGFSSG N*LTERIGVI FTWALTSATV PELEESLLAF
LYLSMVDFTL QYNDDMPTVG VSTHACLIKN IRYYHMYVTV CTQNWKLFQN
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SLIKLA*DDS KSRSIASYRW AG*YVM*K*C STFSH*D*GS ATVARPNNAC SLQVLYDLNS TVKGKEIQET QANSRIHWSE ACASTVPPSA TVVSSLPRIL CTVVVYMIYI *CLDIYIYVL TSSVSQYNA* K*LQLMFLFM RIDSTN*LRG LYFLSSLGKK HTGIYGTSIQ LHGQYYLCEH FPTHSHVG*F DNFISSRDSY YSKKN*NEVV KLVLKGKK*R QKSIYKQRKL DAC**NACVV KKT*EMKN*I KTVTSTCLFI CCFAFRSLAS ASQLFTSFPP GLEHP*VPFF FLVKESNRVD RFN*FEFT*I FFSRDRKNIQ KKKKRMACML YMYEYLYHSL LLHFRYINFV LFITTFF*SS VVYQRCEGGT MF*LVCVIHH ILVIYI*TEV VCYNFDLIVD NSKLNGVRKI PDK*TIGSNV LSSKPKKKAP TSN*ARYDVT SVRHKVALRV PRTOLRTENP RELLAVOOAS YLSIGLITKE MKPY*HPRVV RCWVASALFT QLVTGIHMIG WEQYSGHACF IQQANEWTQQ RQDGEHALHS AHRTQHKHTR EHSMPLAWLL PRP*PL*PKP RQRSLLLV*T PKNCANAGAG QVRCCCPCGR AIGHLAVCPQ SAQAATKAPV TRTHTHTGTE L*ANGEGFPS GFACMLLHAS RTL*PGMR*H RHSICMHGHV FFTPKHTIIV MRSSALRVDG QL*LALICIT TLLLIVCFDF FFSLSIKQ*Q LIVSNRKYSE MANIRR*L*K HLSGSSN*KR D*EGSRILIL AIWNGSNSIE SDP**SFLFS KE*PWLSKD* TTEIHLLMIP S*HC*OGSNE L*V**ILFSR KTYIPCSLSD NHLFPNLVWG *SFSFTISWK TLFVPLSPIG YFSDRFYRNW TILFGQIPNE KFLFSFH*GT RASYSTRTKA PFHSFIY*GF LLGKDNVPY* RIRVHNHEF* CTRSCST*QL GPIH*YST*E IHYRN*YN*I NSS*TNLGFA SQDKTGSGSW DPFLSDRRGS CTK*TSK**P HRSYIYLYKE AIVSGSGFFF GOTVLRTWNE HEEINETSFS FEFFWRTGRA RSLVFPRNR* KSGSLLMDSL RMILLYL*FM AY*K*KVLRQ KKIAVCSELR CCLVOKM*RK WOW*RFTIDY *W*OI*IGWY OFLVWYLITV GLKOT*FNVI NYPLRYKYVN QTAP*FFLLL LVWQSKFCSG TSLKNVSVWF PS*NSLLVCH SGDEISKYSR GHTHTW*IGD VMR*ERERER EYYEYEREVA HGMKPLARNR RRR*CKRETE ELAWOFLFIS LSLSLSSLLP HTLIHAFMDA CSCTRPTGTT ITRRSWLDLL LHKQKKKNKL IGVFHYLSPG V*DLQPAYIY MHQLPCLHTC VTPVRSY*HS TAGEKGKGIN TARIGRODHH GORSSISSLL CLRSPRVTAR NKIEGKAG*G CTTLHMHTAS SVLDLCKHLA SPHLACLTGR QELEQRGMEI RIAERRCSWO FFFPPLLHAL LKNETOOHAV DITENEVSHK KDGGSPSLVL AS*FLLLLPR EIKMGATSWL WLQLGPIGRC KQLTRPPARC VVYD*DLI*L RYAYRYMHHH LLLAYS*RRP RLEKTTSATS ASOSTESSYA FLSRPLRRLO KVTCRFVVFS MRLISILPLP CPCLSPEPVG AAATCSLTLD DGPQLRSVWR RRKYN*LTKR KKFQFPVKEE GRKVMEYSGA SCAGLWSIFL AFYRDLSI** KFLLGIWAHQ N*FPCLFSLV ACLFFSPAPP PRTQKKSETR HQRAMCVCMF *LPL*LDPCS IATKILLLLH CYADGAKDID REREREGKKE AS*LIRYVSF QGGASSKAR* GSRRQIFTIM LSMVWWWWWW CWQCLSICRE EIRPAQRREE RRVRY*RELR KGEGKVCEVM QLAAAAAAA AVVA*PD

Fragmento	Posición	Longitud	Secuencia
F001	[0000,0011]	012	SEERPTYSFQSI
F002	[0013,0019]	007	STQIIYI
F003	[0021,0038]	018	VCVNKPAFLMIWPGRRVQ
F004	[0042,0072]	031	MQQLNSHVQMHAHSGGTHKYIYPNSCTNHNY

F005	[0075,0079]	005	LSKRT
F006	[0081,0089]	009	SYLRSRFGT
F007	[0091,0107]	017	YNCMRDLSRLGAGRRQV
F008	[0109,0109]	001	R
F009	[0111,0146]	036	FHHLQHHQCVYTGFRYNKRCTHIQLIMLMTWYSLAS
F010	[0149,0178]	030	CSPYVCATVVRLLHQMWMIACVTVCAVVWS
F011	[0180,0182]	003	DNC
F012	[0184,0314]	131	LKGCLGLPELEGCRLQLMGVVLRHAHLQKVSRVERGH VVVLARRRRSHRHVHRRLPRFITLSDLQHPCNGKDSV CAWFKDQADCTHALRDSDGEMATTALTYLAPQVHVVS LQIHLLKIKFMPHVSKSEVG
F013	[0317,0344]	028	TVGETKELACRGSLNYTNPFLHIVNFSV
F014	[0346,0370]	025	QLILHARKTMLIAHQQFNTKSKSIM
F015	[0372,0416]	045	FLIDSITCSGRHFYHLFYKAYFQYCRIFFCCWGGGGG GGLLVQVL
F016	[0418,0518]	101	NLWSYSNMHLNWLVKEGCTCMYSAYKMFYISVPQLML HTFLALILIMAFSSLPSICLRSLRPMVWMESPTMFLL DHLNKLGCIYHTLFTVNEVKTKHIHPY
F017	[0520,0543]	024	ICRIYVFAFCKLWIICRSLEDSCW
F018	[0545,0574]	030	YCKFTGMDVTSQQIELLLIGMSNCSCKKVV
F019	[0576,0585]	010	KIKRNMPENV
F020	[0587,0604]	018	TCLNWEELFMIYYLTTCM
F021	[0606,0607]	002	NH
F022	[0609,0626]	018	FGSTVKFLIISKFNLWYK
F023	[0628,0637]	010	LYMYTKYLCT
F024	[0639,0660]	022	SVCMHFLGFAHMNTNMIFKPTT
F025	[0663,0664]	002	СР
F026	[0666,0670]	005	KTKYI
F027	[0672,0685]	014	RGRDAVCSLSEALI
F028	[0687,0691]	005	TSYIK
F029	[0693,0696]	004	KTFR
F030	[0698,0712]	015	AIRLHTIYASLYLYV
F031	[0714,0714]	001	V
F032	[0716,0720]	005	LSKHP
F033	[0722,0744]	023	VQVILSSDNHACLFNKYTSILNP
F034	[0746,0780]	035	NQETFIIIRSPCKSSQFSFISCGDKETDFQSLLKR
F035	[0782,0786]	005	SWKIY
F036	[0788,0803]	016	IDVGTVSNTAGSDSMS
F037	[0805,0827]	023	PCIIIRSIIHRWFSSVYAESGCF
F038	[0829,0829]	001	I
F039	[0831,0883]	053	FWRTVHLSVPQEGIYRELDCDTDLICRSFLFASYCVL HVLFGLAKRFHSPQLT
F040	[0885,0896]	012	SCEASVQKTILV
F041	[0898,0930]	033	HAGLNRVSIVQMPVLSALNFLSLEILLRVRGTA
F042	[0933,0933]	001	Q
F043	[0935,0947]	013	RENVDQACVKDFS
F044	[0949,0950]	002	TD
F045	[0952,0957]	006	LARFMN
F046	[0959,0970]	012	LLQSHPGFSSGN

F047	[0972,1055]	084	LTERIGVIFTWALTSATVPELEESLLAFLYLSMVDFT LQYNDDMPTVGVSTHACLIKNIRYYHMYVTVCTQNWK LFQNSLIKLA
F048	[1057,1071]	015	DDSKSRSIASYRWAG
F049	[1073,1075]	003	YVM
F050	[1077,1077]	001	К
F051	[1079,1084]	006	CSTFSH
F052	[1086,1086]	001	D
F053	[1088,1159]	072	GSATVARPNNACSLQVLYDLNSTVKGKEIQETQANSR IHWSEACASTVPPSATVVSSLPRILCTVVVYMIYI
F054	[1161,1178]	018	CLDIYIYVLTSSVSQYNA
F055	[1180,1180]	001	K
F056	[1182,1195]	014	LQLMFLFMRIDSTN
F057	[1197,1237]	041	LRGLYFLSSLGKKHTGIYGTSIQLHGQYYLCEHFPTH SHVG
F058	[1239,1254]	016	FDNFISSRDSYYSKKN
F059	[1256,1267]	012	NEVVKLVLKGKK
F060	[1269,1282]	014	RQKSIYKQRKLDAC
F061	[1285,1292]	008	NACVVKKT
F062	[1294,1297]	004	EMKN
F063	[1299,1334]	036	IKTVTSTCLFICCFAFRSLASASQLFTSFPPGLEHP
F064	[1336,1352]	017	VPFFFLVKESNRVDRFN
F065	[1354,1357]	004	FEFT
F066	[1359,1406]	048	IFFSRDRKNIQKKKKRMACMLYMYEYLYHSLLLHFRY INFVLFITTFF
F067	[1408,1421]	014	SSVVYQRCEGGTMF
F068	[1423,1435]	013	LVCVIHHILVIYI
F069	[1437,1462]	026	TEVVCYNFDLIVDNSKLNGVRKIPDK
F070	[1464,1482]	019	TIGSNVLSSKPKKKAPTSN
F071	[1484,1533]	050	ARYDVTSVRHKVALRVPRTQLRTENPRELLAVQQASY LSIGLITKEMKPY
F072	[1535,1612]	078	HPRVVRCWVASALFTQLVTGIHMIGWEQYSGHACFIQ QANEWTQQRQDGEHALHSAHRTQHKHTREHSMPLAWL LPRP
F073	[1614,1615]	002	PL
F074	[1617,1627]	011	PKPRQRSLLLV
F075	[1629,1680]	052	TPKNCANAGAGQVRCCCPCGRAIGHLAVCPQSAQAAT KAPVTRTHTHTGTEL
F076	[1682,1702]	021	ANGEGFPSGFACMLLHASRTL
F077	[1704,1707]	004	PGMR
F078	[1709,1741]	033	HRHSICMHGHVFFTPKHTIIVMRSSALRVDGQL
F079	[1743,1767]	025	LALICITTLLLIVCFDFFFSLSIKQ
F080	[1769,1785]	017	QLIVSNRKYSEMANIRR
F081	[1787,1787]	001	L
F082	[1789,1796]	800	KHLSGSSN
F083	[1798,1800]	003	KRD
F084	[1802,1822]	021	EGSRILILAIWNGSNSIESDP
F085	[1825,1831]	007	SFLFSKE
F086	[1833,1838]	006	PWLSKD
F087	[1840,1850]	011	TTEIHLLMIPS

F088	[1852,1853]	002	нс
F089	[1855,1860]	006	QGSNEL
F090	[1862,1862]	001	V
F091	[1865,1889]	025	ILFSRKTYIPCSLSDNHLFPNLVWG
F092	[1891,1936]	046	SFSFTISWKTLFVPLSPIGYFSDRFYRNWTILFGQIP NEKFLFSFH
F093	[1938,1956]	019	GTRASYSTRTKAPFHSFIY
F094	[1958,1968]	011	GFLLGKDNVPY
F095	[1970,1978]	009	RIRVHNHEF
F096	[1980,1986]	007	CTRSCST
F097	[1988,1993]	006	QLGPIH
F098	[1995,1997]	003	YST
F099	[1999,2004]	006	EIHYRN
F100	[2006,2007]	002	YN
F101	[2009,2012]	004	INSS
F102	[2014,2042]	029	TNLGFASQDKTGSGSWDPFLSDRRGSCTK
F103	[2044,2046]	003	TSK
F104	[2049,2108]	060	PHRSYIYLYKEAIVSGSGFFFGQTVLRTWNEHEEINE TSFSFEFFWRTGRARSLVFPRNR
F105	[2110,2126]	017	KSGSLLMDSLRMILLYL
F106	[2128,2131]	004	FMAY
F107	[2133,2133]	001	K
F108	[2135,2156]	022	KVLRQKKIAVCSELRCCLVQKM
F109	[2158,2162]	005	RKWQW
F110	[2164,2169]	006	RFTIDY
F111	[2171,2171]	001	W
F112	[2173,2174]	002	QI
F113	[2176,2194]	019	IGWYQFLVWYLITVGLKQT
F114	[2196,2213]	018	FNVINYPLRYKYVNQTAP
F115	[2215,2241]	027	FFLLLLVWQSKFCSGTSLKNVSVWFPS
F116	[2243,2265]	023	NSLLVCHSGDEISKYSRGHTHTW
F117	[2267,2272]	006	IGDVMR
F118	[2274,2302]	029	EREREYYEYEREVAHGMKPLARNRRRR
F119	[2304,2380]	077	CKRETEELAWQFLFISLSLSLSSLLPHTLIHAFMDAC SCTRPTGTTITRRSWLDLLLHKQKKKNKLIGVFHYLS PGV
F120	[2382,2406]	025	DLQPAYIYMHQLPCLHTCVTPVRSY
F121	[2408,2457]	050	HSTAGEKGKGINTARIGRQDHHGQRSSISSLLCLRSP RVTARNKIEGKAG
F122	[2459,2551]	093	GCTTLHMHTASSVLDLCKHLASPHLACLTGRQELEQR GMEIRIAERRCSWQFFFPPLLHALLKNETQQHAVDIT ENEVSHKKDGGSPSLVLAS
F123	[2553,2593]	041	FLLLLPREIKMGATSWLWLQLGPIGRCKQLTRPPARC VVYD
F124	[2595,2597]	003	DLI
F125	[2599,2615]	017	LRYAYRYMHHHLLLAYS
F126	[2617,2704]	088	RRPRLEKTTSATSASQSTESSYAFLSRPLRRLQKVTC RFVVFSMRLISILPLPCPCLSPEPVGAAATCSLTLDD GPQLRSVWRRRKYN

F127	[2706,2747]	042	LTKRKKFQFPVKEEGRKVMEYSGASCAGLWSIFLAFY RDLSI
F128	[2750,2760]	011	KFLLGIWAHQN
F129	[2762,2799]	038	FPCLFSLVACLFFSPAPPPRTQKKSETRHQRAMCVCM F
F130	[2801,2803]	003	LPL
F131	[2805,2841]	037	LDPCSIATKILLLLHCYADGAKDIDREREREGKKEAS
F132	[2843,2858]	016	LIRYVSFQGGASSKAR
F133	[2860,2904]	045	GSRRQIFTIMLSMVWWWWWWWWCWQCLSICREEIRPAQR REERRVRY
F134	[2906,2933]	028	RELRKGEGKVCEVMQLAAAAAAAAVVA
F135	[2935,2936]	002	PD

Marco de lectura -3:

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QKRGQHTLFN LYKAHKSYIY KYA*INPRF* *YGLAGGYNS SRCNS*IHTY
KCTHTVVALT NIYTLTVALI TIINN*ANVR RVT*DLDLAH DITACVIYLD
WGPGAARYSA DFIICSTTSV YIQDLDTING VHIYN**C** LGIPLLANNA
VHMYVOLW*D SCTKCG*LHV *PCVO*CGAE TIVN*RAVWD YPSWRVVGCS
*WE*C*GMLT CRKFLESKGA MWSYSLVGGA PIVMCIAGCP VSLLSAICSI
RAMGRIQCVR GLRTROTARM L*ETQTVRWL LLR*HTLLLR YMLSVCRSIS
*K*NSCHMSV RARLVNKLSG KOKN*RAEGR *TTLTLFCI* STSAYSSSFC
MOERPC*LLI SSSTOSONOL CNSS*IR*PA AAGISTIYSI RPTFNTVGFF
FVVGGGGGGG GCWFRFSEIY GAIVICI*TG W*KKVAHACT LPIKCFIYLY
HS*CCIPF*L *S*LWLSPAC PPFV*DP*GP WCGWNLPLCS Y*TI*TS*AA
YTTRFLLLMK SKONIYIHIE FVEFTCLRFA SCGSSVAAWR TPAGSTASLO
VWM*PVSK*S FCLLG*VTVL ARK*YRK*KE TCQRMFRLV* TGRSYS*YTI
SOHACEITSL VAO*SS*SFL NLICGINNYI CILNTFVHDR YACIS*DLPI
*ILT*FLNRL HSNAHKKPSI YREGEMOFAV *ARL*YELHT *NRKHSGKPY
DCTPYMLHYI FMCECDCPNI HKFR*FCHOI TMHVYSINTH OYLIHKIKRP
LLSSDHHARV LSFLLFHVET RKLTSKVC*S ARVGRYTKLM LVLYLILPGO
TQ*VDLA**Y GV*SIGGSAQ CMLNLGAFES NSGGQCIYQY RKRGYIENLI
VTQI*FVGAS CLRAIAYYMF CLVWLKDFTV PN*HKAVRHR SKRQS*YDTQ
DSTEYPLCKC PYFLL*ISCL WRSCSESEAR RSNSKERMLT KLALRISHRL
TS*LDL*IDY SSHIQDSAQE ID*PKGLA*F LPGH*LLQLC QSWRSHCWPS
CTSQWWTSHC NIMMICPLSE LARTLA*LRT LGITTCT*LC VHKTGNCFRT
V*LS*HKMIO NPVPLLAIDG RDDMLCKNDV OHFHTEIKGL OO*LGRIMHA
VCRFCMT*TV Q*KAKKFKRH RRTVEYIGPK PVLAPCHRQL QWFLLYRESC
ALSLYI*YIY DV*TYIYMY* HLQSVNIMRR NSCS*CSCSC VLTAPIN*GA
YTSFHR*GKS TOEYMAHRFS YTANIIYVNI FPHTPTWASL TTSFLOEILI
ILRKIKMRLS N*S*RVKNDG KNPYTSREN* THANKMLVLL KKHKK*RTRL
RPLLPHVCLF AALHSDLWPL HHNYLHPFPP DWSIHRCLFF FW*KKVTGWI
GSTSSNLHRS SSLEIEKIFR KRKKEWHACF TCMNTYITLC YYTSDTLILY
CLLLLFFRVQ *YTNDVRGEL CSS*FALFIT Y*LYIYKQK* FVIILTLLLI
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TRN*MVCVKY PINKQSAVMY *AASQKKKLQ HQIKHDMMSH QCVTRWRCVF QELN*GPRIQ ESSLQCSKQA TSRSDSSPKR *SLTSILE*C GVGWPVRCSR SWSQEFT*LG GNSTVGMHVL SNRQTSGRSK GRMESTHCTV HTGHSTNTPE STPCL*LGFY PGLNHSDRNH ASVLYSSCRL PRTAPMQVQD RSAAAAHAAV PLGI*QSVRS PHRPPQRHQS RAHTHTQAQS YERTEKGFHQ VLLACSCTLH VPYSOG*DDT DTVYACMATC SSLPNIRS*S *EAQLCV*TV SYSWLLFALL PYY*LCVLIF FSLSLSNNDS SLSVIENIRR WQIFGDDYEN TSPDPRIERE TERDQES*FS LFGMDPILLS LTHSDHFSLA KNDLGYQRIE QPRSIYL*YL VDIANKDLMN YEFNRFSLAE RRIFLAHYQT ITYSQTSCGA NRFHLPSHGK PFSFRLALSG ILVIGSIGTG QSYLVKYLTK NSYFPFIKVR GLLIPQERKH LFILSYTRGF YLEKTMFHTK GFGSITTSSS ALDLVALSN* ALSISIPRKK SIIETNTIRL TLHRQTWGLR AKIRPARDHG TLFYQIGGDL VQNRLLSNNP IDPISIYIKR QSCQEAAFSL VKRYFELGTS MKRLTRLLSL LSFSGGPVAQ DLWSSPGTDE KVGRFLWTRS E*FFSIYSSW PIRSRRCSDR KRLQCVANLD AVWFKKCNAN GNGNGLR*IT SGNKFE*VGI NF*CGI*LRL D*NKHDLTLL ITHYVTNM*T KRHLSSSYYY *FGKANSVLG LH*KMFLFGF PLEIVSWCAT OVMKSASTPV DTHTHGELVM *CDERERERE STMSMRER*H MG*SPWLGTE GDDDAREKLK SWHGSSFLYL SLSLSLPCYL THSYTLSWTH ALVPDQPVQQ *QEGAG*ICF YTSKKKKTN* *EYFIIYHRV CEIYSLHIYT CISSLVSTPV SHP*GATSTA RPVRKERA*I QQE*GGRTTM AKEARSALSF ACALPESQLA TRSKERPAED ALHYTCIQQA LY*IYANI*P HLTLLASQAG RS*SKGEWKS ASQKGGVRGN FSFPLCCMLF SRTRHSSMRL I*QRMKSATR KMAAPHPSSS LASSCFFCLE KLRWERRAGS GSNWDQSDGA NS*PARPRGV *CTTRI*SN* DTRTDICIIT CCWRTRRGGR GWRRRRARPR RRRAPRARTP S*AGRCGACR RSPAGSSCSR CA*SRSCLSP APACRRSPSA PPPPAP*PWT TARSSDQSGE EGNIIN*QSA RNSNFQ*RRK EGR*WSIAAR AVLACGRSSW LSIGTFLYSR NSS*ASGRIK INFHASSLLW RVFFFPPHHP HAPKKNQRPD TREPCVYVCS SCLSS*ILAA *QPRSYYSYT ATQMVQKT*I ERERERGKRK LAS*SVMLVS REELAAKQDK AAGGKYLPSC *AWCGGGGGG VGSASRSAGK RSGQPREGRR GG*GIKGS*G RERGKYVR*C S*QQQLLLLL QWWPDL

Fragmento	Posición	Longitud	Secuencia
F001	[0000,0022]	023	QKRGQHTLFNLYKAHKSYIYKYA
F002	[0024,0028]	005	INPRF
F003	[0031,0044]	014	YGLAGGYNSSRCNS
F004	[0046,0074]	029	IHTYKCTHTVVALTNIYTLTVALITIINN
F005	[0076,0082]	007	ANVRRVT
F006	[0084,0134]	051	DLDLAHDITACVIYLDWGPGAARYSADFIICSTTSVY IQDLDTINGVHIYN
F007	[0137,0137]	001	С
F008	[0140,0157]	018	LGIPLLANNAVHMYVQLW
F009	[0159,0165]	007	DSCTKCG
F010	[0167,0169]	003	LHV
F011	[0171,0174]	004	PCVQ

F012 [(0176,0183]	008	CGAETIVN
F013 [(0185,0199]	015	RAVWDYPSWRVVGCS
F014 [(0201,0202]	002	WE
F015 [(0204,0204]	001	С
F016 [(0206,0270]	065	GMLTCRKFLESKGAMWSYSLVGGAPIVMCIAGCPVSL LSAICSIRAMGRIQCVRGLRTRQTARML
F017 [(0272,0282]	011	ETQTVRWLLLR
F018 [(0284,0299]	016	HTLLLRYMLSVCRSIS
F019 [(0301,0301]	001	K
F020 [(0303,0323]	021	NSCHMSVRARLVNKLSGKQKN
F021 [(0325,0329]	005	RAEGR
F022 [(0331,0338]	008	TTLTLFCI
F023 [(0340,0355]	016	STSAYSSSFCMQERPC
F024 [(0357,0373]	017	LLISSSTQSQNQLCNSS
F025 [(0375,0376]	002	IR
F026 [(0378,0426]	049	PAAAGISTIYSIRPTFNTVGFFFVVGGGGGGGGCWFR FSEIYGAIVICI
F027 [(0428,0430]	003	TGW
F028 [(0432,0451]	020	KKVAHACTLPIKCFIYLYHS
F029 [(0453,0457]	005	CCIPF
F030 [(0459,0459]	001	L
F031 [(0461,0461]	001	S
F032 [(0463,0473]	011	LWLSPACPPFV
F033 [(0475,0476]	002	DP
F034 [(0478,0490]	013	GPWCGWNLPLCSY
F035 [(0492,0493]	002	TI
F036 [(0495,0496]	002	TS
F037 [(0498,0552]	055	AAYTTRFLLLMKSKQNIYIHIEFVEFTCLRFASCGSS VAAWRTPAGSTASLQVWM
F038 [(0554,0557]	004	PVSK
F039 [(0559,0564]	006	SFCLLG
F040 [(0566,0572]	007	VTVLARK
F041 [(0574,0576]	003	YRK
F042 [(0578,0588]	011	KETCQRMFRLV
F043 [(0590,0595]	006	TGRSYS
F044 [(0597,0612]	016	YTISQHACEITSLVAQ
F045 [(0614,0615]	002	SS
F046 [(0617,0644]	028	SFLNLICGINNYICILNTFVHDRYACIS
F047 [(0646,0649]	004	DLPI
F048 [(0651,0653]	003	ILT
F049 [(0655,0679]	025	FLNRLHSNAHKKPSIYREGEMQFAV
F050 [(0681,0683]	003	ARL
F051 [(0685,0689]	005	YELHT
	0691,0723]	033	NRKHSGKPYDCTPYMLHYIFMCECDCPNIHKFR
	0725,0777]	053	FCHQITMHVYSINTHQYLIHKIKRPLLSSDHHARVLS FLLFHVETRKLTSKVC
F054 [(0779,0801]	023	SARVGRYTKLMLVLYLILPGQTQ
	0803,0806]	004	VDLA
	0809,0811]	003	YGV

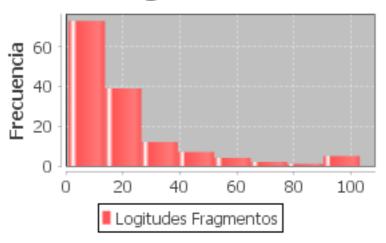
F057	[0813,0853]	041	SIGGSAQCMLNLGAFESNSGGQCIYQYRKRGYIENLI VTQI
F058	[0855,0881]	027	FVGASCLRAIAYYMFCLVWLKDFTVPN
F059	[0883,0894]	012	HKAVRHRSKRQS
F060	[0896,0914]	019	YDTQDSTEYPLCKCPYFLL
F061	[0916,0951]	036	ISCLWRSCSESEARRSNSKERMLTKLALRISHRLTS
F062	[0953,0955]	003	LDL
F063	[0957,0971]	015	IDYSSHIQDSAQEID
F064	[0973,0977]	005	PKGLA
F065	[0979,0983]	005	FLPGH
F066	[0985,1025]	041	LLQLCQSWRSHCWPSCTSQWWTSHCNIMMICPLSELA RTLA
F067	[1027,1036]	010	LRTLGITTCT
F068	[1038,1050]	013	LCVHKTGNCFRTV
F069	[1052,1053]	002	LS
F070	[1055,1091]	037	HKMIQNPVPLLAIDGRDDMLCKNDVQHFHTEIKGLQQ
F071	[1093,1106]	014	LGRIMHAVCRFCMT
F072	[1108,1110]	003	TVQ
F073	[1112,1155]	044	KAKKFKRHRRTVEYIGPKPVLAPCHRQLQWFLLYRES CALSLYI
F074	[1157,1161]	005	YIYDV
F075	[1163,1168]	006	TYIYMY
F076	[1170,1183]	014	HLQSVNIMRRNSCS
F077	[1185,1196]	012	CSCSCVLTAPIN
F078	[1198,1205]	008	GAYTSFHR
F079	[1207,1260]	054	GKSTQEYMAHRFSYTANIIYVNIFPHTPTWASLTTSF LQEILIILRKIKMRLSN
F080	[1262,1262]	001	S
F081	[1264,1278]	015	RVKNDGKNPYTSREN
F082	[1280,1294]	015	THANKMLVLLKKHKK
F083	[1296,1341]	046	RTRLRPLLPHVCLFAALHSDLWPLHHNYLHPFPPDWS IHRCLFFFW
F084	[1343,1409]	067	KKVTGWIGSTSSNLHRSSSLEIEKIFRKRKKEWHACF TCMNTYITLCYYTSDTLILYCLLLLFFRVQ
F085	[1411,1422]	012	YTNDVRGELCSS
F086	[1424,1430]	007	FALFITY
F087	[1432,1438]	007	LYIYKQK
F088	[1440,1452]	013	FVIILTLLLITRN
F089	[1454,1469]	016	MVCVKYPINKQSAVMY
F090	[1471,1503]	033	AASQKKKLQHQIKHDMMSHQCVTRWRCVFQELN
F091	[1505,1529]	025	GPRIQESSLQCSKQATSRSDSSPKR
F092	[1531,1537]	007	SLTSILE
F093	[1539,1556]	018	CGVGWPVRCSRSWSQEFT
F094	[1558,1604]	047	LGGNSTVGMHVLSNRQTSGRSKGRMESTHCTVHTGHS TNTPESTPCL
F095	[1606,1653]	048	LGFYPGLNHSDRNHASVLYSSCRLPRTAPMQVQDRSA AAAHAAVPLGI
F096	[1655,1705]	051	QSVRSPHRPPQRHQSRAHTHTQAQSYERTEKGFHQVL LACSCTLHVPYSQG
F097	[1707,1727]	021	DDTDTVYACMATCSSLPNIRS

F098	[1729,1729]	001	S
F099	[1731,1736]	006	EAQLCV
F100	[1738,1752]	015	TVSYSWLLFALLPYY
F101	[1754,1806]	053	LCVLIFFSLSLSNNDSSLSVIENIRRWQIFGDDYENT SPDPRIERETERDQES
F102	[1808,1846]	039	FSLFGMDPILLSLTHSDHFSLAKNDLGYQRIEQPRSI YL
F103	[1848,1988]	141	YLVDIANKDLMNYEFNRFSLAERRIFLAHYQTITYSQ TSCGANRFHLPSHGKPFSFRLALSGILVIGSIGTGQS YLVKYLTKNSYFPFIKVRGLLIPQERKHLFILSYTRG FYLEKTMFHTKGFGSITTSSSALDLVALSN
F104	[1990,2120]	131	ALSISIPRKKSIIETNTIRLTLHRQTWGLRAKIRPAR DHGTLFYQIGGDLVQNRLLSNNPIDPISIYIKRQSCQ EAAFSLVKRYFELGTSMKRLTRLLSLLSFSGGPVAQD LWSSPGTDEKVGRFLWTRSE
F105	[2122,2166]	045	FFSIYSSWPIRSRRCSDRKRLQCVANLDAVWFKKCNA NGNGNGLR
F106	[2168,2175]	008	ITSGNKFE
F107	[2177,2181]	005	VGINF
F108	[2183,2185]	003	CGI
F109	[2187,2190]	004	LRLD
F110	[2192,2207]	016	NKHDLTLLITHYVTNM
F111	[2209,2219]	011	TKRHLSSSYYY
F112	[2221,2231]	011	FGKANSVLGLH
F113	[2233,2269]	037	KMFLFGFPLEIVSWCATQVMKSASTPVDTHTHGELVM
F114	[2271,2287]	017	CDERERESTMSMRER
F115	[2289,2291]	003	HMG
F116	[2293,2349]	057	SPWLGTEGDDDAREKLKSWHGSSFLYLSLSLPCYL THSYTLSWTHALVPDQPVQQ
F117	[2351,2355]	005	QEGAG
F118	[2357,2368]	012	ICFYTSKKKKTN
F119	[2371,2402]	032	EYFIIYHRVCEIYSLHIYTCISSLVSTPVSHP
F120	[2404,2417]	014	GATSTARPVRKERA
F121	[2419,2422]	004	IQQE
F122	[2424,2471]	048	GGRTTMAKEARSALSFACALPESQLATRSKERPAEDA LHYTCIQQALY
F123	[2473,2477]	005	IYANI
F124	[2479,2491]	013	PHLTLLASQAGRS
F125	[2493,2530]	038	SKGEWKSASQKGGVRGNFSFPLCCMLFSRTRHSSMRL
F126	[2532,2581]	050	QRMKSATRKMAAPHPSSSLASSCFFCLEKLRWERRAG SGSNWDQSDGANS
F127	[2583,2589]	007	PARPRGV
F128	[2591,2595]	005	CTTRI
F129	[2597,2598]	002	SN
F130	[2600,2640]	041	DTRTDICIITCCWRTRRGGRGWRRRRARPRRRAPRA RTPS
F131	[2642,2661]	020	AGRCGACRRSPAGSSCSRCA
F132	[2663,2685]	023	SRSCLSPAPACRRSPSAPPPPAP
F133	[2687,2705]	019	PWTTARSSDQSGEEGNIIN
F134	[2707,2715]	009	QSARNSNFQ

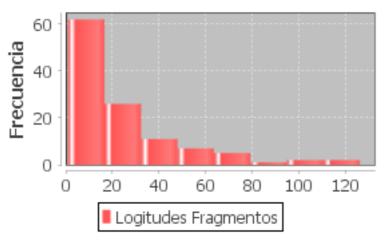
F135	[2717,2722]	006	RRKEGR
F136	[2724,2752]	029	WSIAARAVLACGRSSWLSIGTFLYSRNSS
F137	[2754,2804]	051	ASGRIKINFHASSLLWRVFFFPPHHPHAPKKNQRPDT REPCVYVCSSCLSS
F138	[2806,2809]	004	ILAA
F139	[2811,2827]	017	QPRSYYSYTATQMVQKT
F140	[2829,2842]	014	IERERERGKRKLAS
F141	[2844,2869]	026	SVMLVSREELAAKQDKAAGGKYLPSC
F142	[2871,2901]	031	AWCGGGGGGVGSASRSAGKRSGQPREGRRGG
F143	[2903,2907]	005	GIKGS
F144	[2909,2917]	009	GRERGKYVR
F145	[2919,2920]	002	CS
F146	[2922,2935]	014	QQQLLLLLQWWPDL

Histogramas:

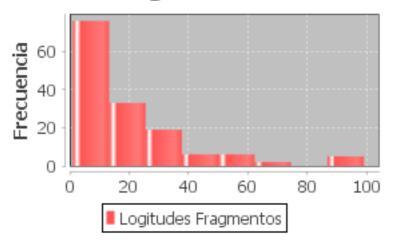
Histograma ML 1



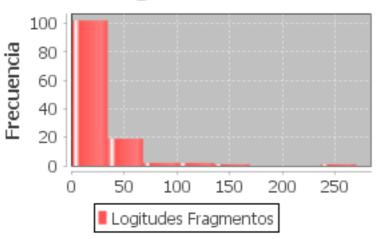
Histograma ML 2



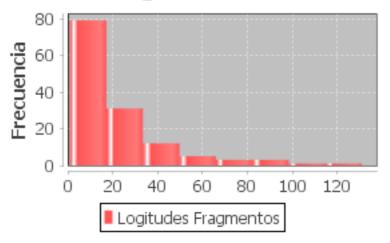
Histograma ML 3



Histograma ML -1



Histograma ML -2



Histograma ML -3

