

Εργασία Βιοπληροφορικής

Μητσικάρης Πέτρος

AEM: 8341

Κωδικός Πρωτεΐνης: 1RNM

FASTA

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>sp|P61823|RNAS1_BOVIN Ribonuclease pancreatic OS=Bos taurus GN=RNASE1  
PE=1 SV=1  
MALKSLVLLSLLVLVLLVLRVQPSLGKETA AAKFERQHMD SSTS AASSSN YCNQMMKSRN  
LTKDRCKPVNTFVHESLADVQAVCSQKNVACKNGQTNCYQSYSTMSITDCRETGSSKYPN  
CAYKTTQANKHII VACEGNPYVPVHFDASV
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ProtParam

10	20	30	40	50
MALKSLVLLS	LLVLVLLVLR	VQPSLGKETA	AAKFERQHMD	SSTS AASSSN
60	70	80	90	100
YCNQMMKSRN	LTKDRCKPVN	TFVHESLADV	QAVCSQKNVA	CKNGQTNCYQ
110	120	130	140	150
SYSTMSITDC	RETGSSKYPN	CAYKTTQANK	HIIVACEGNP	YVPVHFDASV

References and documentation are available.

Number of amino acids: 150

Molecular weight: 16460.8

Theoretical pI: 8.93

Amino acid composition:

[CSV format](#)

Ala (A)	13	8.7%
Arg (R)	5	3.3%
Asn (N)	10	6.7%
Asp (D)	5	3.3%
Cys (C)	8	5.3%
Gln (Q)	8	5.3%
Glu (E)	5	3.3%
Gly (G)	4	2.7%
His (H)	4	2.7%
Ile (I)	3	2.0%
Leu (L)	13	8.7%
Lys (K)	11	7.3%
Met (M)	5	3.3%
Phe (F)	3	2.0%
Pro (P)	5	3.3%
Ser (S)	18	12.0%
Thr (T)	10	6.7%
Trp (W)	0	0.0%
Tyr (Y)	6	4.0%
Val (V)	14	9.3%
Pyl (O)	0	0.0%
Sec (U)	0	0.0%
(B)	0	0.0%
(Z)	0	0.0%
(X)	0	0.0%

Total number of negatively charged residues (Asp + Glu): 10

Total number of positively charged residues (Arg + Lys): 16

Atomic composition:

Carbon	C	707
Hydrogen	H	1146
Nitrogen	N	202
Oxygen	O	223
Sulfur	S	13

Formula: $C_{707}H_{1146}N_{202}O_{223}S_{13}$

Total number of atoms: 2291

Extinction coefficients:

This protein does not contain any Trp residues. Experience shows that this could result in more than 10% error in the computed extinction coefficient.

Extinction coefficients are in units of $M^{-1} cm^{-1}$, at 280 nm measured in water.

Ext. coefficient 9440

Abs 0.1% (=1 g/l) 0.573, assuming all pairs of Cys residues form cystines

Ext. coefficient 8940

Abs 0.1% (=1 g/l) 0.543, assuming all Cys residues are reduced

Estimated half-life:

The N-terminal of the sequence considered is M (Met).

The estimated half-life is: 30 hours (mammalian reticulocytes, in vitro).

>20 hours (yeast, in vivo).

>10 hours (Escherichia coli, in vivo).

Instability index:

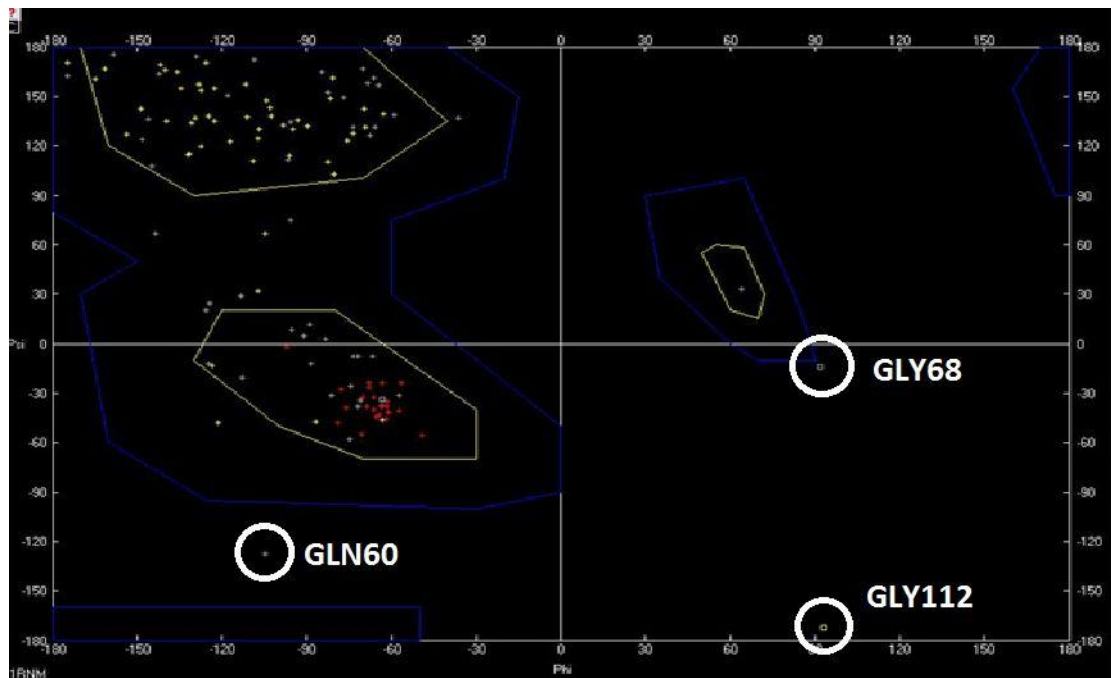
The instability index (II) is computed to be 38.81

This classifies the protein as stable.

Aliphatic index: 77.33

Grand average of hydropathicity (GRAVY): -0.213

RAMACHANDRAN PLOT



Εκτός ορίων βρίσκονται τα αμινοξέα GLN60, GLY68 και GLY112.