

ProtParam

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User-provided sequence:

102030405060

MASTEGANNM PKQVEVRMHD SHLGSEEPKH RHLGLRLCDK LGKNLLLTLT VFGVILGAVC

708090100110120

GGLLRLASPI HPDVVMLIAF PGDILMRMLK MLILPLIISS LITGLSGLDA KASGRLGTRA

130140150160170180

MVYYMSTTII AAVLGVILVL AIHPGNPKLK KQLGPGKKND EVSSLDAFLD LIRNLFPENL

190200210220230240

VQACFQQIQT VTKKVLVAPP PDEEANATSA VVSLNETVT EVPEETKMVI KKGLEFKDGM

250260270280290300

NVLGLIGFFI AFGIAMGKMG DQAKLMVDFF NILNEIVMKL VIMIMWYSPL GIACLICGKI

310320330340350360

IAIKDLEVVA RQLGMYMVTV IIGLIHGGI FLPLIYFVVT RKNPFSFFAG IFQAWITALG

370380390400

TASSAGTLPV TFRCLEENLG IDKRVTFRVL PVGATINMDG TALYEAVAA

[References](#) and [documentation](#) are available.

Number of amino acids: 409

Molecular weight: 44319.05

Theoretical pI: 8.63

Amino acid composition:

CSV format

Ala (A)	33	8.1%
Arg (R)	13	3.2%
Asn (N)	15	3.7%
Asp (D)	15	3.7%
Cys (C)	6	1.5%
Gln (Q)	9	2.2%
Glu (E)	18	4.4%
Gly (G)	36	8.8%
His (H)	7	1.7%
Ile (I)	37	9.0%
Leu (L)	55	13.4%
Lys (K)	24	5.9%
Met (M)	20	4.9%
Phe (F)	19	4.6%
Pro (P)	19	4.6%
Ser (S)	17	4.2%
Thr (T)	22	5.4%
Trp (W)	2	0.5%
Tyr (Y)	6	1.5%
Val (V)	36	8.8%
PyI (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): 33

Total number of positively charged residues (Arg + Lys): 37

Atomic composition:

Carbon	C	2021
Hydrogen	H	3294
Nitrogen	N	512
Oxygen	O	545
Sulfur	S	26

Formula: C₂₀₂₁H₃₂₉₄N₅₁₂O₅₄₅S₂₆

Total number of atoms: 6398

Extinction coefficients:

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

Ext. coefficient 20315

Abs 0.1% (=1 g/l) 0.458, assuming all pairs of Cys residues form cystines

Ext. coefficient 19940

Abs 0.1% (=1 g/l) 0.450, 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 38.55

This classifies the protein as stable.

Aliphatic index: 121.32

Grand average of hydropathicity (GRAVY): 0.574



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