ProtParam

ProtParam

User-provided sequence:

```
        10         20         30         40         50         60
MVPHAILARG RDVCRRNGLL ILSVLSVIVG CLLGFFLRTR RLSPQEISYF QFPGELLMRM

        70         80         90        100        110        120
LKMMILPLVV SRNMFPANLV EATFKQYRTK TTPVVKSPKV APEEAPPRRI LIYGVQEENG

       130        140        150        160        170        180
SHVQNFALDL TPPPEVVYKS EPGTSDGMNV LGIVFFSATM GIMLGRMGDS GAPLVSFCQC

       190        200        210        220        230        240
LNESVMKIVA VAVWYFPFGI VFLIAGKILE MDDPRAVGKK LGFYSVTVVC GLVLHGLFIL

       250        260        270        280        290        300
PLLYFFITKK NPIVFIRGIL QALLIALATS SSSATLPITF KCLLENNHID RRIARFVLPV

       310        320        330        340        350        360
GATINMDGTA LYEAVAAIFI AQVNNYELDF GQIITISITA TAASIGAAGI PQAGLVTMVI

       370        380        390        400        410        420
VLTSVGLPTD DITLIIAVDW ALDRFRTMIN VLGDALAAGI MAHICRKDFA RDTGTETCFP

       430        440        450        460        470
SPETAALRDQ ASEPPGDRGS PAEWLCEECS RGLRAHPGPH LPPPRPRSSG AG
```

References and documentation are available.

Number of amino acids: 472

Molecular weight: 51244.34

Theoretical pI: 8.49

Amino acid composition: CSV format

Ala (A)	43	9.1%
Arg (R)	28	5.9%
Asn (N)	14	3.0%
Asp (D)	18	3.8%
Cys (C)	10	2.1%
Gln (Q)	11	2.3%
Glu (E)	20	4.2%
Gly (G)	37	7.8%
His (H)	7	1.5%
Ile (I)	38	8.1%
Leu (L)	52	11.0%
Lys (K)	14	3.0%
Met (M)	16	3.4%
Phe (F)	25	5.3%
Pro (P)	34	7.2%
Ser (S)	27	5.7%
Thr (T)	27	5.7%
Trp (W)	3	0.6%
Tyr (Y)	9	1.9%
Val (V)	39	8.3%
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): 38

Total number of positively charged residues (Arg + Lys): 42

Atomic composition:

Carbon	C	2323
Hydrogen	H	3716
Nitrogen	N	612
Oxygen	O	637
Sulfur	S	26

Formula: $C_{2323}H_{3716}N_{612}O_{637}S_{26}$
Total number of atoms: 7314

Extinction coefficients:

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

Ext. coefficient	30535
Abs 0.1% (=1 g/l)	0.596, assuming all pairs of Cys residues form cystines

Ext. coefficient	29910
Abs 0.1% (=1 g/l)	0.584, 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 39.29
This classifies the protein as stable.

Aliphatic index: 107.44

Grand average of hydropathicity (GRAVY): 0.397

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