ProtParam

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User-provided sequence:

```
        10         20         30         40         50         60
MSIDHEQPWQ QPVPAGERPA AGPGGLAAAA AGKPAAESTA HAPAPADHDP RARAALPAPK

        70         80         90        100        110        120
RLHSADGQRR GHWGQPGLCP APISAHLPPD QVLLFSWRAS DEDAADAGVT SHCLQPGHRY

       130        140
GIPGQQGHGA DGDAGSCVLH GDHHHR
```

References and documentation are available.

Number of amino acids: 146

Molecular weight: 15055.54

Theoretical pI: 6.32

Amino acid composition: CSV format

Ala (A)	27	18.5%
Arg (R)	9	6.2%
Asn (N)	0	0.0%
Asp (D)	11	7.5%
Cys (C)	3	2.1%
Gln (Q)	9	6.2%
Glu (E)	4	2.7%
Gly (G)	18	12.3%
His (H)	13	8.9%
Ile (I)	3	2.1%
Leu (L)	9	6.2%
Lys (K)	2	1.4%
Met (M)	1	0.7%
Phe (F)	1	0.7%
Pro (P)	18	12.3%
Ser (S)	8	5.5%
Thr (T)	2	1.4%
Trp (W)	3	2.1%
Tyr (Y)	1	0.7%
Val (V)	4	2.7%
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): 15
Total number of positively charged residues (Arg + Lys): 11

Atomic composition:

Carbon	C	649
Hydrogen	H	989
Nitrogen	N	213
Oxygen	O	197
Sulfur	S	4

Formula: $C_{649}H_{989}N_{213}O_{197}S_4$
Total number of atoms: 2052

Extinction coefficients:

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

Ext. coefficient 18115
Abs 0.1% (=1 g/l) 1.203, assuming all pairs of Cys residues form cystines

Ext. coefficient 17990
Abs 0.1% (=1 g/l) 1.195, 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 48.03
This classifies the protein as unstable.

Aliphatic index: 58.49

Grand average of hydropathicity (GRAVY): -0.660