ProtParam

ProtParam

User-provided sequence:

```
        10         20         30         40         50         60
MTKSNGEEPK MGGRMERFQQ GVRKRTLLAK KKVQNITKED VKSYLFRNAF VLLTVTAVIV

        70         80         90        100        110        120
DIEETEQAIS NFSFKYNPWI YPPTIQNELP GSQVLLLSWG TSDEDVTDAG LTTYHLQSCH


RNGGAR
```

References and documentation are available.

Number of amino acids: 126

Molecular weight: 14280.24

Theoretical pI: 8.73

Amino acid composition: CSV format

Ala (A)	6	4.8%
Arg (R)	7	5.6%
Asn (N)	7	5.6%
Asp (D)	5	4.0%
Cys (C)	1	0.8%
Gln (Q)	7	5.6%
Glu (E)	9	7.1%
Gly (G)	9	7.1%
His (H)	2	1.6%
Ile (I)	6	4.8%
Leu (L)	11	8.7%
Lys (K)	9	7.1%
Met (M)	3	2.4%
Phe (F)	5	4.0%
Pro (P)	5	4.0%
Ser (S)	8	6.3%
Thr (T)	11	8.7%
Trp (W)	2	1.6%
Tyr (Y)	4	3.2%
Val (V)	9	7.1%
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): 14
Total number of positively charged residues (Arg + Lys): 16

Atomic composition:

Carbon	C	633
Hydrogen	H	1004
Nitrogen	N	176
Oxygen	O	192
Sulfur	S	4

Formula: $C_{633}H_{1004}N_{176}O_{192}S_4$
Total number of atoms: 2009

Extinction coefficients:

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

Ext. coefficient 16960
Abs 0.1% (=1 g/l) 1.188, assuming all pairs of Cys residues form cystines

Ext. coefficient 16960
Abs 0.1% (=1 g/l) 1.188, 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 45.19
This classifies the protein as unstable.

Aliphatic index: 78.10

Grand average of hydropathicity (GRAVY): -0.509