ProtParam

ProtParam

User-provided sequence:

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

        70         80         90        100        110        120
LKMMILPLVV SSLMSGLASL DAKTSSRLGV LTVAYYLWTT FMAVIVGIFM VSIIHPGSAA

       130        140        150        160        170        180
QKETTEQSGK PIMSSADALL DLIRNMFPAN LVEATFKQYR TKTTPVVKSP KVAPEEAPPR

       190        200        210        220        230        240
RILIYGVQEE NGSHVQNFAL DLTPPPEVVY KSEPGTSDGM NVLGIVFFSA TMGIMLGRMG

       250        260        270        280        290        300
DSGAPLVSFC QCLNESVMKI VAVAVWYFPF GIVFLIAGKI LEMDDPRAVG KKLGFYSVTV

       310        320        330        340        350        360
VCGLVLHGLF ILPLLYFFIT KKNPIVFIRG ILQALLIALA TSSSACWRTT TSTGASLASC

       370        380        390        400        410        420
CPWVPPSTWT ALRSTRLWPP SSSPRSTTTS WTLARSSPSV SQPLQPALGQ LASPRPASSP

       430        440        450
WSSCSPPWDC PPMTSPSSLP LTGLWTVSAP
```

References and documentation are available.

Number of amino acids: 450

Molecular weight: 48808.53

Theoretical pI: 9.47

Amino acid composition: CSV format

```
Ala (A)  33       7.3%
Arg (R)  22       4.9%
Asn (N)   8       1.8%
Asp (D)  10       2.2%
Cys (C)  10       2.2%
Gln (Q)  12       2.7%
Glu (E)  13       2.9%
Gly (G)  29       6.4%
His (H)   4       0.9%
Ile (I)  25       5.6%
Leu (L)  54      12.0%
Lys (K)  15       3.3%
Met (M)  17       3.8%
Phe (F)  20       4.4%
Pro (P)  40       8.9%
Ser (S)  51      11.3%
Thr (T)  31       6.9%
Trp (W)  10       2.2%
Tyr (Y)   9       2.0%
Val (V)  37       8.2%
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): 23

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

Atomic composition:

Carbon	C	2222
Hydrogen	H	3529
Nitrogen	N	569
Oxygen	O	608
Sulfur	S	27

Formula: $C_{2222}H_{3529}N_{569}O_{608}S_{27}$
Total number of atoms: 6955

Extinction coefficients:

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

Ext. coefficient	69035
Abs 0.1% (=1 g/l)	1.414, assuming all pairs of Cys residues form cystines

Ext. coefficient	68410
Abs 0.1% (=1 g/l)	1.402, 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 55.71
This classifies the protein as unstable.

Aliphatic index: 99.64

Grand average of hydropathicity (GRAVY): 0.369