ProtParam

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User-provided sequence:

```
        10         20         30         40         50         60
MSSHGNSLFL RESGQRLGRV GWLQRLQESL QQRALRTRLR LQTMTLEHVL RFLRRNAFIL

        70         80         90        100        110
LTVSAVVIGV SLAFALRPYQ LTYRQIKYFS FPGELLMRML QMLVLPLIVS
```

References and documentation are available.

Number of amino acids: 110

Molecular weight: 12846.36

Theoretical pI: 11.88

Amino acid composition: CSV format

Ala (A)	5	4.5%
Arg (R)	14	12.7%
Asn (N)	2	1.8%
Asp (D)	0	0.0%
Cys (C)	0	0.0%
Gln (Q)	9	8.2%
Glu (E)	4	3.6%
Gly (G)	6	5.5%
His (H)	2	1.8%
Ile (I)	4	3.6%
Leu (L)	23	20.9%
Lys (K)	1	0.9%
Met (M)	5	4.5%
Phe (F)	6	5.5%
Pro (P)	3	2.7%
Ser (S)	9	8.2%
Thr (T)	5	4.5%
Trp (W)	1	0.9%
Tyr (Y)	3	2.7%
Val (V)	8	7.3%
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): 4
Total number of positively charged residues (Arg + Lys): 15

Atomic composition:

Carbon	C	583
Hydrogen	H	957
Nitrogen	N	169
Oxygen	O	147
Sulfur	S	5

Formula: $C_{583}H_{957}N_{169}O_{147}S_5$
Total number of atoms: 1861

Extinction coefficients:

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

```
Ext. coefficient     9970
Abs 0.1% (=1 g/l)   0.776
```

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 57.42
This classifies the protein as unstable.
```

Aliphatic index: 121.36

Grand average of hydropathicity (GRAVY): 0.235