

# ProtParam

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### User-provided sequence:

102030405060

FKTNYEKRSF KVPIQANETL VGAVINNVSE AMETLTRITE ELVPVPGSVN GVNALGLLVF

708090100110120

SMCFGFVIGN MKEQGQALRE FFDSLNEAIM RLVAVIMCLV ETRLQPCWCC FSPVIVLPLL

130140

YFLVTRKNPW VFIGGLLQAL ITALGTSS

[References](#) and [documentation](#) are available.

Number of amino acids: 148

Molecular weight: 16348.35

Theoretical pI: 6.46

Amino acid composition: 

CSV format

Ala (A)	9	6.1%
Arg (R)	6	4.1%
Asn (N)	9	6.1%
Asp (D)	1	0.7%
Cys (C)	5	3.4%
Gln (Q)	5	3.4%
Glu (E)	10	6.8%
Gly (G)	10	6.8%
His (H)	0	0.0%
Ile (I)	9	6.1%
Leu (L)	18	12.2%
Lys (K)	5	3.4%
Met (M)	5	3.4%
Phe (F)	10	6.8%
Pro (P)	7	4.7%
Ser (S)	8	5.4%
Thr (T)	9	6.1%
Trp (W)	2	1.4%
Tyr (Y)	2	1.4%
Val (V)	18	12.2%
Py1 (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): 11

Total number of positively charged residues (Arg + Lys): 11

### Atomic composition:

Carbon	C	745
Hydrogen	H	1187
Nitrogen	N	187
Oxygen	O	204
Sulfur	S	10

Formula: C<sub>745</sub>H<sub>1187</sub>N<sub>187</sub>O<sub>204</sub>S<sub>10</sub>

Total number of atoms: 2333

### Extinction coefficients:

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

Ext. coefficient      14230  
Abs 0.1% (=1 g/l)    0.870, assuming all pairs of Cys residues form cystines

Ext. coefficient      13980  
Abs 0.1% (=1 g/l)    0.855, assuming all Cys residues are reduced

**Estimated half-life:**

The N-terminal of the sequence considered is F (Phe).

The estimated half-life is: 1.1 hours (mammalian reticulocytes, in vitro).  
                                  3 min (yeast, in vivo).  
                                  2 min (Escherichia coli, in vivo).

**Instability index:**

The instability index (II) is computed to be 35.60  
This classifies the protein as stable.

**Aliphatic index:** 112.50

**Grand average of hydropathicity (GRAVY):** 0.570



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