

# ProtParam

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# ProtParam

## User-provided sequence:

102030405060

MAPALSRSLY TSPLTSVPIT PVSSRLSHLR SSFLPHGGAL RTGVSCSWNL EKRCNRFPAVK

708090100110120

CDAAVAEKET TEEGSGEKFE YQAEVSRLLD LIVHSLSYSHK EVFLRELVSND ASDALDKLRF

130140150160170180

LSVTEPSLLG DGGDLEIRIK PDPDNGTITI TDTGIGMTKE ELIDCLGTIA QSGTSKFLKA

190200210220230240

LKENKDLGAD NGLIGQFVGVD FYSAFLVAEK VVVSTKSPKS DKQYVWESVA DSSSYLIREE

250260270280290300

TDPDNILRRG TQITLYLRED DKYEFAESTR IKNLVKNYSQ FVGFPITYWQ EKSRTIEVEE

310320330340350360

DEPVKEGEEG EPKKKKTTKT EKYWDWELAN ETKPLWMRNS KEVEKGEYNE FYKKAFNEFL

370380390400410420

DPLAHTHFTT EGEVEFRSIL YIPGMGPLNN EDVTNPKTKN IRLYVKRVFI SDDFDGELFP

430440450460470480

RYLSFVKGVV DSDDLPLNVS REILQESRIV RIMRKRLIRK TFDMIQEISE SENKEDYKKF

490500510520530540

WENFGRFLKL GCIEDTGNHK RITPLLRFFS SKNEEELTSL DDYIENMGEN QKAIYYLATD

550560570580590600

SLKSAKSAPF LEKLIQKDIE VLYLVEPIDE VAIQNLQTYK EKKFVDISKE DLELGDEDEV

610620630640650660

KDREAKQEFN LLCDWIKQQL GDKVAKVQVS NRLSSSPCVL VSGKFGWSAN MERLMKAQAL

670680690700710720

GDTSSLEFMR GRRILEINPD HPIIKDLNAA CKNAPESTEA TRVVDLLYDT AISSSGFTPD

730740750760770780

SPAELGNKIY EMMAMAVGGR WGRVEEEEEES STVNEGDDKS GETEVVEPSE VRAESDPWQD

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

Number of amino acids: 780

Molecular weight: 88662.95

Theoretical pI: 4.93

Amino acid composition:

CSV format

Ala (A)	39	5.0%
Arg (R)	40	5.1%
Asn (N)	33	4.2%
Asp (D)	53	6.8%

Cys (C)	8	1.0%
Gln (Q)	19	2.4%
Glu (E)	86	11.0%
Gly (G)	45	5.8%
His (H)	8	1.0%
Ile (I)	43	5.5%
Leu (L)	73	9.4%
Lys (K)	64	8.2%
Met (M)	13	1.7%
Phe (F)	33	4.2%
Pro (P)	31	4.0%
Ser (S)	65	8.3%
Thr (T)	43	5.5%
Trp (W)	11	1.4%
Tyr (Y)	24	3.1%
Val (V)	49	6.3%
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): 139**

**Total number of positively charged residues (Arg + Lys): 104**

#### Atomic composition:

Carbon	C	3934
Hydrogen	H	6193
Nitrogen	N	1043
Oxygen	O	1243
Sulfur	S	21

**Formula:** C<sub>3934</sub>H<sub>6193</sub>N<sub>1043</sub>O<sub>1243</sub>S<sub>21</sub>

**Total number of atoms:** 12434

#### Extinction coefficients:

Extinction coefficients are in units of M<sup>-1</sup> cm<sup>-1</sup>, at 280 nm measured in water.

Ext. coefficient 96760

Abs 0.1% (=1 g/l) 1.091, assuming all pairs of Cys residues form cystines

Ext. coefficient 96260

Abs 0.1% (=1 g/l) 1.086, 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 44.50

This classifies the protein as unstable.

**Aliphatic index:** 81.22

**Grand average of hydropathicity (GRAVY):** -0.552

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