

ProtParam

[Home](#) | [Contact](#)**ProtParam****User-provided sequence:**

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    10      20      30      40      50      60
PISPIETVPV KLKPGMDGPK VKQWPLTEEK IKALVEICTE MEKEGKISKI GPENPYNTPV

    70      80      90     100     110     120
FAIKKKDSTK WRKLVDFREL NKRTQDFWEV QLGIPHPAGL KKKKSVTVLD VGDYFVSVPL

   130     140     150     160     170     180
DEDFRKYTAF TIPSINNETP GIRYQYNVLP QGWKGSPAIF QSSMTKILEP FRKQNPDIVI

   190     200     210     220     230     240
YQYMDLVVG  SDLEIGQHRT KIEELRQHLL RWGLTTPDKK HQKEPPFLWM GYELHPDKWT

   250     260     270     280     290     300
VQPIVLPEKD SWTVNDIQKL VGKLNWASQI YPGIKVRQLC KLLRGTKALT EVIPLTEEAE

   310     320     330     340     350     360
LELAENREIL KEPVHGVYYD PSKDLIAEIQ KQGQGQWTYQ IYQEPFKNLK TGKYARMRGA

   370     380     390     400     410     420
HTNDVKQLTE AVQKITTESI VIWGKTPKFK LPIQKETWET WWTEYWQATW IPEWEFVNTP

   430     440     450     460     470     480
PLVKLWYQLE KEPIVGAETF YVDGAANRET KLGKAGYVTN RGRQKVVTLT DTTNQKTELQ

   490     500     510     520     530     540
AIYLALQDSG LEVNIIVTDSQ YALGIIQAQP DQSESELVNQ IIEQLIKKEK VYLAWVPAHK

   550     560
GIGGNEQVDK LVSAGIRKVL

```

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

Number of amino acids: 560

Molecular weight: 64479.19

Theoretical pI: 8.57

Amino acid composition:[CSV format](#)

Ala (A)	26	4.6%
Arg (R)	18	3.2%
Asn (N)	19	3.4%
Asp (D)	25	4.5%
Cys (C)	2	0.4%
Gln (Q)	37	6.6%
Glu (E)	47	8.4%
Gly (G)	34	6.1%
His (H)	8	1.4%
Ile (I)	41	7.3%
Leu (L)	49	8.8%
Lys (K)	58	10.4%
Met (M)	6	1.1%
Phe (F)	13	2.3%
Pro (P)	37	6.6%
Ser (S)	19	3.4%
Thr (T)	40	7.1%
Trp (W)	19	3.4%
Tyr (Y)	22	3.9%

Val (V)	40	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): 72
Total number of positively charged residues (Arg + Lys): 76

Atomic composition:

Carbon	C	2948
Hydrogen	H	4619
Nitrogen	N	763
Oxygen	O	842
Sulfur	S	8

Formula: C₂₉₄₈H₄₆₁₉N₇₆₃O₈₄₂S₈

Total number of atoms: 9180

Extinction coefficients:

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

Ext. coefficient 137405

Abs 0.1% (=1 g/l) 2.131, assuming all pairs of Cys residues form cystines

Ext. coefficient 137280

Abs 0.1% (=1 g/l) 2.129, assuming all Cys residues are reduced

Estimated half-life:

The N-terminal of the sequence considered is P (Pro).

The estimated half-life is: >20 hours (mammalian reticulocytes, in vitro).
 >20 hours (yeast, in vivo).
 ? (Escherichia coli, in vivo).

Instability index:

The instability index (II) is computed to be 31.37
 This classifies the protein as stable.

Aliphatic index: 88.04

Grand average of hydropathicity (GRAVY): -0.543