ProtParam

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User-provided sequence:

```
10 20 30 40 50 60

FKTNYEKRSF KVPIQANETL VGAVINNVSE AMETLTRITE ELVPVPGSVN GVNALGLVVF

70 80 90 100 110 120

SMCFGFVIGN MKEQGQALRE FFDSLNEAIM RLVAVIMCHR LATPLLLGNT EKPLGFYWRV

130 140 150 160

AASTHHRSGD LFKFCHPTHH LQVPGREQWR GQARHQIRAP RRSHH
```

References and documentation are available.

```
Number of amino acids: 165
Molecular weight: 18659.56
```

Theoretical pI: 9.66

```
Amino acid composition: CSV format
Ala (A) 12
               7.3%
Arg (R) 13
                7.9%
Asn (N)
        9
                5.5%
Asp (D)
         2
                 1.2%
Cys (C)
                1.8%
        3
Gln (Q)
        7
                4.2%
Glu (E) 11
                6.7%
Gly (G) 12
                7.3%
His (H)
        9
                5.5%
Ile (I)
         7
                 4.2%
Leu (L)
        15
                9.1%
Lys (K)
        6
                 3.6%
Met (M)
        5
                 3.0%
Phe (F)
        10
                 6.1%
Pro (P)
        8
                4.8%
Ser (S)
         8
                 4.8%
Thr (T)
                 5.5%
         9
Trp (W)
        2
                1.2%
Tyr (Y)
                1.2%
                9.1%
Val (V) 15
        0
                0.0%
Pyl (0)
Sec (U) 0
                0.0%
                 0.0%
 (B)
      0
 (Z)
      0
                 0.0%
 (X)
                 0.0%
```

Total number of negatively charged residues (Asp + Glu): 13 Total number of positively charged residues (Arg + Lys): 19

Atomic composition:

Carbon	C	833
Hydrogen	Н	1310
Nitrogen	N	246
0xygen	0	227
Sulfur	S	8

Formula: $C_{833}H_{1310}N_{246}O_{227}S_8$ Total number of atoms: 2624

Extinction coefficients:

```
Extinction coefficients are in units of \,\mathrm{M}^{-1} cm^{-1}, at 280 nm measured in water.
Ext. coefficient
                    14105
Abs 0.1% (=1 g/l) 0.756, assuming all pairs of Cys residues form cystines
Ext. coefficient
                    13980
Abs 0.1\% (=1 g/l) 0.749, 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 39.10
This classifies the protein as stable.
Aliphatic index: 85.64
Grand average of hydropathicity (GRAVY): -0.175
```



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