

ProtParam

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EAA3_HUMAN (P43005)

Excitatory amino acid transporter 3 (Excitatory amino-acid carrier 1) (Neuronal and epithelial glutamate transporter) (Sodium-dependent glutamate/aspartate transporter 3) (Solute carrier family 1 member 1)
Homo sapiens (Human)

The computation has been carried out on the complete sequence (**524** amino acids).

Warning: All computation results shown below do **not** take into account any annotated post-translational modification.
[References](#) and [documentation](#) are available.

Number of amino acids: 524

Molecular weight: 57100.38

Theoretical pI: 5.56

Amino acid composition:

[CSV format](#)

Ala (A)	41	7.8%
Arg (R)	16	3.1%
Asn (N)	20	3.8%
Asp (D)	22	4.2%
Cys (C)	6	1.1%
Gln (Q)	14	2.7%
Glu (E)	27	5.2%
Gly (G)	37	7.1%
His (H)	2	0.4%
Ile (I)	50	9.5%
Leu (L)	55	10.5%
Lys (K)	29	5.5%
Met (M)	22	4.2%
Phe (F)	26	5.0%
Pro (P)	17	3.2%
Ser (S)	33	6.3%
Thr (T)	38	7.3%
Trp (W)	4	0.8%
Tyr (Y)	11	2.1%
Val (V)	54	10.3%
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): 49

Total number of positively charged residues (Arg + Lys): 45

Atomic composition:

Carbon	C	2593
Hydrogen	H	4195
Nitrogen	N	643
Oxygen	O	739
Sulfur	S	28

Formula: C₂₅₉₃H₄₁₉₅N₆₄₃O₇₃₉S₂₈

Total number of atoms: 8198

Extinction coefficients:

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

Ext. coefficient 38765
Abs 0.1% (=1 g/l) 0.679, assuming all pairs of Cys residues form cystines

Ext. coefficient 38390
Abs 0.1% (=1 g/l) 0.672, 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 27.23
This classifies the protein as stable.

Aliphatic index: 115.86

Grand average of hydropathicity (GRAVY): 0.514



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