Data Sheet (Cat.No.TMPY-03059)

TargetMol

Tubulin cofactor A Protein, Human, Recombinant

General Information

Synonyms:	tubulin folding cofactor A
Protein Construction:	A DNA sequence encoding the mature form of human TBCA (O75347) (Met1-Ala108) was expressed, with a N-terminal Met. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	O75347
Molecular Weight:	13 kDa (predicted); 16 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.5. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Tubulin folding cofactor A belongs to the TBCA family. It is one of four proteins (cofactors A, D, E, and C) involved in the early step of the tubulin folding pathway. These proteins can fold intermediates and finally lead to correctly folded beta-tubulin. It is believed that tubulin folding cofactors A and D play a role in capturing and stabilizing beta-tubulin intermediates in a quasi-native confirmation. Tubulin folding cofactor E binds to the cofactor D/beta-tubulin complex; interaction with tubulin folding cofactor C then causes the release of beta-tubulin polypeptides

that are committed to the native state.

Reference

Strausberg RL,et al.(2002) Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc Natl Acad Sci. 99(26):16899-903.
Irwin DM,et al.(2003) Molecular evolution of vertebrate goose-type lysozyme genes. J Mol Evol. 56(2):234-42.
Sklar P,et al.(2011) Large-scale genome-wide association analysis of bipolar disorder identifies a new susceptibility locus near ODZ4. Nat Genet. 43(10):977-83.