Data Sheet (Cat.No.TMPY-03392)

TargetMol

CKAP1/TBCB Protein, Human, Recombinant (His)

General Information

Synonyms:	CKAPI;tubulin folding cofactor B;CG22;CKAP1
Protein Construction:	A DNA sequence encoding the mature form of human TBCB (Q99426) (Met1-Ile244) was expressed with a polyhistide tag at the N-terminus. Predicted N terminal: His
Species:	Human
Expression Host:	E. coli
Accession:	Q99426
Molecular Weight:	29.2 kDa (predicted); 33-37 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:	> 90 % 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 7.4. 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 B, also known as TBCB, belongs to the TBCB family. It contains 1 CAP-Gly domain and can be detected in most tissues. TBCB binds to alpha-tubulin folding intermediates after their interaction with cytosolic chaperonin in the pathway. The cytoskeleton is composed of 3 structural elements: actin filaments, microtubules, and intermediate filaments. TBCB is involved in regulation of tubulin heterodimer dissociation. It may function as a negative regulator of axonal growth.

Reference

Feingold EA, et al. (2003) Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc Natl Acad Sci. 99(26):16899-903.
Tian G, et al. (1997) Tubulin subunits exist in an activated conformational state generated and maintained by protein cofactors. J Cell Biol. 138(4):821-32.
Wolz W, et al. (1997) A complex satellite DNA polymorphism flanking the human ryanodine receptor gene (RYR1). Cytogenet Cell Genet. 72(2-3):215-6.

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