PRODUCT INFORMATION

Expression system Baculovirus

Domain 1-451aa

UniProt No. P23258

NCBI Accession No. NP_001061

Alternative Names Tubulin gamma-1 chain, TUBG1, CDCBM4, GCP-1, TUBG, TUBGCP1

PRODUCT SPECIFICATION

Molecular Weight 51.9 kDa (457aa)

Concentration 0.25mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 40% glycerol, 0.1M NaCl, 2mM DTT, 50mM imidazole.

Purity

> 85% by SDS-PAGE

Endotoxin level < 1 EU per 1ug of protein (determined by LAL method)

Tag His-Tag

Application SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

TUBG1, also known as tubulin gamma-1 chain, is a member of the tubulin superfamily. This protein is found at microtubule organizing centers (MTOC) such as the spindle poles or the centrosome. It is the pericentriolar matrix component that regulates alpha/beta tubulin minus-end nucleation, centrosome duplication and spindle formation. It is required for microtubule formation and progression of the cell cycle. Also, this protein is interacts



with GCP2, GCP3, and B9D2. The interaction is leading to centrosomal localization of TUBG1 and CDK5RAP2. Recombinant human TUBG1, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

MPREIITLQL GQCGNQIGFE FWKQLCAEHG ISPEGIVEEF ATEGTDRKDV FFYQADDEHY IPRAVLLDLE PRVIHSILNS PYAKLYNPEN IYLSEHGGGA GNNWASGFSQ GEKIHEDIFD IIDREADGSD SLEGFVLCHS IAGGTGSGLG SYLLERLNDR YPKKLVQTYS VFPNQDEMSD VVVQPYNSLL TLKRLTQNAD CVVVLDNTAL NRIATDRLHI QNPSFSQINQ LVSTIMSAST TTLRYPGYMN NDLIGLIASL IPTPRLHFLM TGYTPLTTDQ SVASVRKTTV LDVMRRLLQP KNVMVSTGRD RQTNHCYIAI LNIIQGEVDP TQVHKSLQRI RERKLANFIP WGPASIQVAL SRKSPYLPSA HRVSGLMMAN HTSISSLFER TCRQYDKLRK REAFLEQFRK EDMFKDNFDE MDTSREIVQQ LIDEYHAATR PDYISWGTQE Q<HHHHHH>

General References

Zheng Y., et al, (1991) Cell 65:817-823. Kapeller R., et al, (1995) J. Biol. Chem. 270:25985-25991.

DATA

SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain