

TBCD Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP10195a**Specification**

TBCD Antibody (N-term) Blocking peptide - Product Information

Primary Accession [O9BTW9](#)
Other Accession [NP_005984.3](#)

TBCD Antibody (N-term) Blocking peptide - Additional Information

Gene ID 6904

Other Names

Tubulin-specific chaperone D, Beta-tubulin cofactor D, tfcD, SSD-1, Tubulin-folding cofactor D, TBCD, KIAA0988, SSD1, TFCD

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TBCD Antibody (N-term) Blocking peptide - Protein Information

Name TBCD

Synonyms KIAA0988, SSD1, TFCD

Function

Tubulin-folding protein implicated in the first step of the tubulin folding pathway and required for tubulin complex assembly. Involved in the regulation of microtubule polymerization or depolymerization, it modulates microtubule dynamics by capturing GTP- bound beta-tubulin (TUBB). Its ability to interact with beta tubulin is regulated via its interaction with ARL2. Acts as a GTPase-activating protein (GAP) for ARL2. Induces microtubule disruption in absence of ARL2. Increases degradation of beta tubulin, when overexpressed in polarized cells. Promotes epithelial cell detachment, a process antagonized by ARL2. Induces tight adherens and tight junctions disassembly at the lateral cell membrane (PubMed:10722852, PubMed:10831612, PubMed:11847227, PubMed:20740604, PubMed:27666370, PubMed:28158450). Required for

correct assembly and maintenance of the mitotic spindle, and proper progression of mitosis (PubMed:27666370). Involved in neuron morphogenesis (PubMed:27666374).

Cellular Location

Cell junction, tight junction {ECO:0000250|UniProtKB:Q28205}. Lateral cell membrane {ECO:0000250|UniProtKB:Q28205}. Cytoplasm {ECO:0000250|UniProtKB:Q28205}. Cell junction, adherens junction {ECO:0000250|UniProtKB:Q28205}. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome Note=Localized in cell-cell contacts. {ECO:0000250|UniProtKB:Q28205}

Tissue Location

Ubiquitously expressed.

TBCD Antibody (N-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

TBCD Antibody (N-term) Blocking peptide - Images

TBCD Antibody (N-term) Blocking peptide - Background

Cofactor D is one of four proteins (cofactors A, D, E, and C) involved in the pathway leading to correctly folded beta-tubulin from folding intermediates. Cofactors A and D are believed to play a role in capturing and stabilizing beta-tubulin intermediates in a quasi-native conformation. Cofactor E binds to the cofactor D/beta-tubulin complex; interaction with cofactor C then causes the release of beta-tubulin polypeptides that are committed to the native state.

TBCD Antibody (N-term) Blocking peptide - References

Yoshida, T., et al. Int. J. Mol. Med. 25(4):649-656(2010) Oguri, M., et al. Am. J. Hypertens. 23(1):70-77(2010) Yoshida, T., et al. Int. J. Mol. Med. 24(4):539-547(2009) Cunningham, L.A., et al. J. Biol. Chem. 283(11):7155-7165(2008) Shultz, T., et al. FASEB J. 22(1):168-182(2008)