

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

Primary Accession  
Other Accession

[Q9BTW9](#)  
[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](http://www.uniprot.org/citations/10722852), PubMed:[10831612](http://www.uniprot.org/citations/10831612), PubMed:[11847227](http://www.uniprot.org/citations/11847227), PubMed:[20740604](http://www.uniprot.org/citations/20740604), PubMed:[27666370](http://www.uniprot.org/citations/27666370), PubMed:[28158450](http://www.uniprot.org/citations/28158450)). Required for

correct assembly and maintenance of the mitotic spindle, and proper progression of mitosis (PubMed:<a href="http://www.uniprot.org/citations/27666370" target="\_blank">27666370</a>). Involved in neuron morphogenesis (PubMed:<a href="http://www.uniprot.org/citations/27666374" target="\_blank">27666374</a>).

#### **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 confirmation. 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)