

**TTBK2 Antibody (N-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP12162a****Specification**

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**TTBK2 Antibody (N-term) Blocking peptide - Product Information**Primary Accession [Q6IQ55](#)**TTBK2 Antibody (N-term) Blocking peptide - Additional Information****Gene ID** 146057**Other Names**

Tau-tubulin kinase 2, TTBK2, KIAA0847

**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.

**TTBK2 Antibody (N-term) Blocking peptide - Protein Information****Name** TTBK2**Synonyms** KIAA0847**Function**

Serine/threonine kinase that acts as a key regulator of ciliogenesis: controls the initiation of ciliogenesis by binding to the distal end of the basal body and promoting the removal of CCP110, which caps the mother centriole, leading to the recruitment of IFT proteins, which build the ciliary axoneme. Has some substrate preference for proteins that are already phosphorylated on a Tyr residue at the +2 position relative to the phosphorylation site. Able to phosphorylate tau on serines in vitro (PubMed:<a href="http://www.uniprot.org/citations/23141541" target="\_blank">23141541</a>). Phosphorylates MPHOSPH9 which promotes its ubiquitination and proteasomal degradation, loss of MPHOSPH9 facilitates the removal of the CP110-CEP97 complex (a negative regulator of ciliogenesis) from the mother centrioles, promoting the initiation of ciliogenesis (PubMed:<a href="http://www.uniprot.org/citations/30375385" target="\_blank">30375385</a>).

**Cellular Location**

Cell projection, cilium. Cytoplasm, cytoskeleton, cilium basal body. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Cytoplasm, cytosol. Nucleus. Note=Localizes to the transition zone in primary cilia in response to cell cycle signals that promote ciliogenesis (By

similarity). May also be present in cytosol and, at lower level in the nucleus.

### **TTBK2 Antibody (N-term) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

### **TTBK2 Antibody (N-term) Blocking peptide - Images**

### **TTBK2 Antibody (N-term) Blocking peptide - Background**

This gene encodes a serine-threonine kinase that putatively phosphorylates tau and tubulin proteins. Mutations in this gene cause spinocerebellar ataxia type 11 (SCA11); a neurodegenerative disease characterized by progressive ataxia and atrophy of the cerebellum and brainstem.

### **TTBK2 Antibody (N-term) Blocking peptide - References**

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) : Xu, Q., et al. Neurol. Sci. 31(1):107-109(2010) Edener, U., et al. J. Neurol. 256(11):1856-1859(2009) Houlden, H., et al. Nat. Genet. 39(12):1434-1436(2007) Kitano-Takahashi, M., et al. Acta Crystallogr. Sect. F Struct. Biol. Cryst. Commun. 63 (PT 7), 602-604 (2007) :