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TTBK2 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP12162a

Specification

TTBK2 Antibody (N-term) - Product Information

Application	**FC, IHC-P, WB,E**
Primary Accession	Q6IQ55
Other Accession	Q3UVR3, NP_775771.3
Reactivity	**Human**
Predicted	**Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**137412**
Antigen Region	**217-245**

TTBK2 Antibody (N-term) - Additional Information

Gene ID 146057

Other Names
Tau-tubulin kinase 2, TTBK2, KIAA0847

Target/Specificity
This TTBK2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 217-245 amino acids from the N-terminal region of human TTBK2.

Dilution
FC~~1:10~50
IHC-P~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
TTBK2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

TTBK2 Antibody (N-term) - 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:23141541). 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:30375385). Required for recruitment of CPLANE2 and INTU to the mother centriole (By similarity).

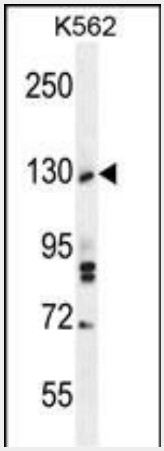
Cellular Location
Cell projection, cilium. Cytoplasm, cytoskeleton, cilium basal body. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Cytoplasm, cytosol. Nucleus Note=Localizes at the transition zone, a region between the basal body and the ciliary axoneme (PubMed:23141541). May also be present in cytosol and, at lower level in the nucleus (PubMed:21548880)

TTBK2 Antibody (N-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TTBK2 Antibody (N-term) - Images



TTBK2 Antibody (N-term) (Cat. #AP12162a) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the TTBK2 antibody detected the TTBK2 protein (arrow).

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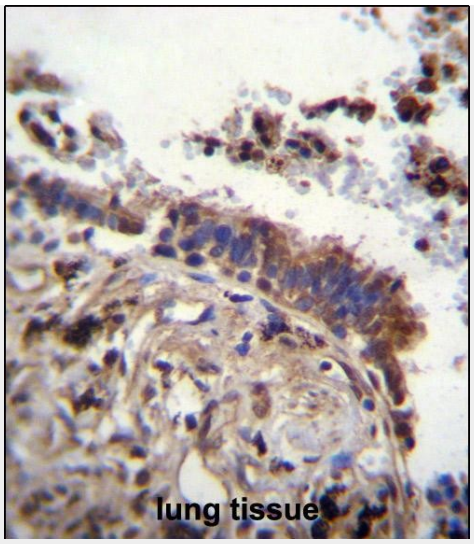
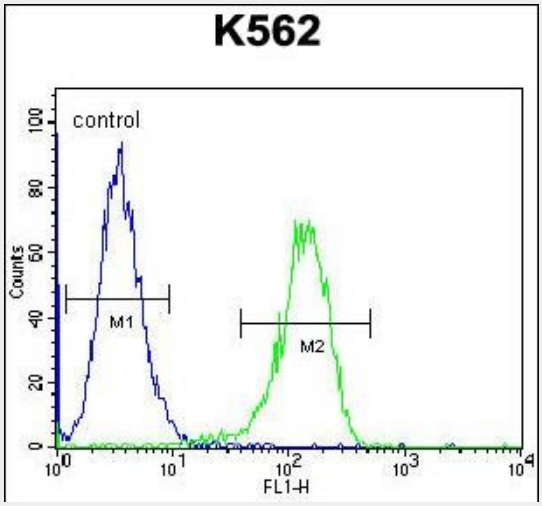


TTBK2 Antibody (N-term) (Cat. #AP12162a)immunohistochemistry analysis in formalin fixed and paraffin embedded human lung tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of TTBK2 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.



TTBK2 Antibody (N-term) (Cat. #AP12162a) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

TTBK2 Antibody (N-term) - 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) - 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) :