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TTBK1 Antibody
Catalog # ASC10846

Specification

TTBK1 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q5TCY1
Other Accession	Q5TCY1, 97203020
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 145, 151 kDa** **Observed: 140 kDa KDa**
Application Notes	**TTBK1 antibody can be used for detection of TTBK1 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

TTBK1 Antibody - Additional Information

Gene ID	**84630**

Target/Specificity
TTBK1; Multiple isoforms of TTBK1 are known to exist. This antibody is predicted to not cross-react with TTBK2.

Reconstitution & Storage
TTBK1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
TTBK1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

TTBK1 Antibody - Protein Information

Name TTBK1

Synonyms BDTK, KIAA1855

Function
Serine/threonine kinase which is able to phosphorylate TAU on serine, threonine and tyrosine residues. Induces aggregation of TAU.

Cellular Location

Cytoplasm.

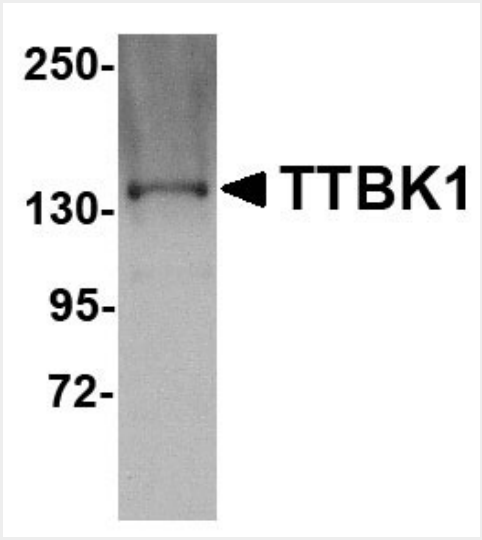
Tissue Location
Expressed in the brain, particularly in cortical and hippocampal neurons. Weakly expressed in spinal cord and testis. No expression in adipose tissue, bladder, cervix, colon, esophagus, heart, kidney, liver, lung, ovary, placenta, prostate, skeletal muscle, small intestine, spleen, testis, thymus, thyroid or trachea

TTBK1 Antibody - Protocols

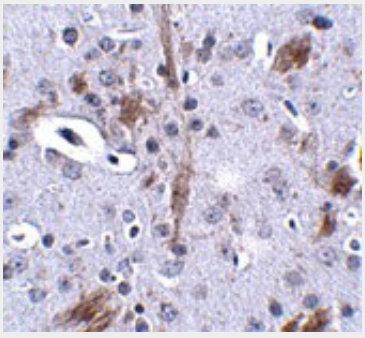
Provided below are standard protocols that you may find useful for product applications.

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

TTBK1 Antibody - Images



Western blot analysis of TTBK1 in Jurkat lysate with TTBK1 antibody at 1 µg/mL.



Immunohistochemistry of TTBK1 in mouse brain tissue with TTBK1 antibody at 2.5 µg/mL.

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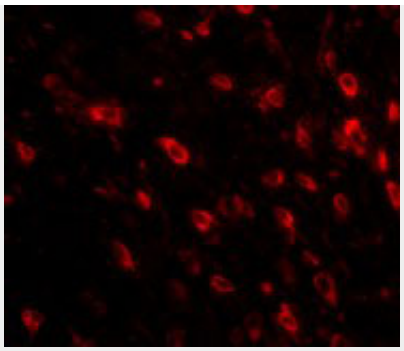

Immunofluorescence of TTBK1 in Human Brain tissue with TTBK1 antibody at 20 µg/mL.

TTBK1 Antibody - Background

TTBK1 Antibody: Tau tubulin kinase (TTBK1) belongs to the casein kinase 1 superfamily and is involved in the phosphorylation of specific serine/threonine residues in paired helical filaments of the tau protein. It is specifically expressed in the brain and induces tau aggregation in human neuronal cells in a dose-dependent manner. TTBK1 levels have been found to be upregulated in the brains of Alzheimer's disease (AD) patients, and mice expressing human TTBK1 protein showed significant age-dependent memory impairment. These mice displayed increased levels of the CDK5 activators p25 and p35, and reduced levels of the NMDA receptor types 2B and 2D, suggesting that TTBK1 may play a role in memory dysfunction in AD patients.

TTBK1 Antibody - References

Sato S, Cerny RL, Bueschner JL, et al. Tau-tubulin kinase 1 (TTBK1), a neuron-specific tau kinase candidate, is involved in tau phosphorylation and aggregation. J. Neurochem. 2006; 98:1573-84.
Sato S, Xu J, Okuyama S, et al. Spatial learning impairment, enhanced CDK5/p35 activity, and downregulation of NMDA receptor expression in transgenic mice expressing tau-tubulin kinase 1. J. Neurosci. 2008; 28:14511-21.