

Datasheet for 600-401-FS3**TTBK1 Antibody****Overview**

Description:	Anti-TTBK1 (RABBIT) Antibody - 600-401-FS3
Item No.:	600-401-FS3
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse
Host Species:	Rabbit

Product Details

Background:	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. Multiple isoforms of TTBK1 are known to exist. This antibody is predicted to not cross-react with TTBK2.
Synonyms:	TTBK1 Antibody, BDTK, BDTK, KIAA1855, Tau-tubulin kinase 1, Brain-derived tau kinase
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	TTBK1
Reactivity:	Human, Mouse
Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-TTBK1 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 16 amino acid synthetic peptide near the C-terminus of human TTBK1.

Purity/Specificity: Anti-TTBK1 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with TTBK1 from other sources has not been determined.

Relevant Links:

- [UniProtKB - Q5TCY1](#)
- [GeneID - 84630](#)
- [NCBI - NP_115927.1](#)

Application Details

Tested Applications: ELISA, IF, IHC, WB

Application Note: Anti-TTBK1 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 143 kDa in Western Blots of specific cell lysates and tissues.

Assay Dilutions: All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

ELISA: 1:10,000

IF: 20 µg/mL

IHC: 2.5 µg/mL

WB: 1 µg/mL

Formulation

Physical State: Liquid (sterile filtered)

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

Buffer: 0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2

Preservative: 0.02% (w/v) Sodium Azide

Stabilizer: None

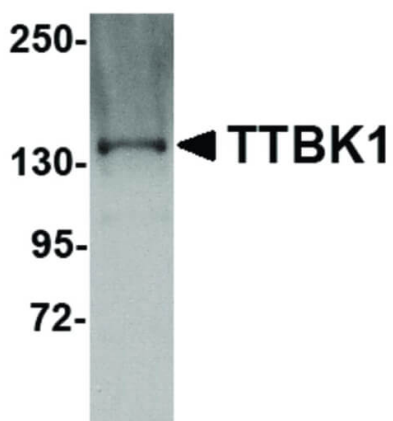
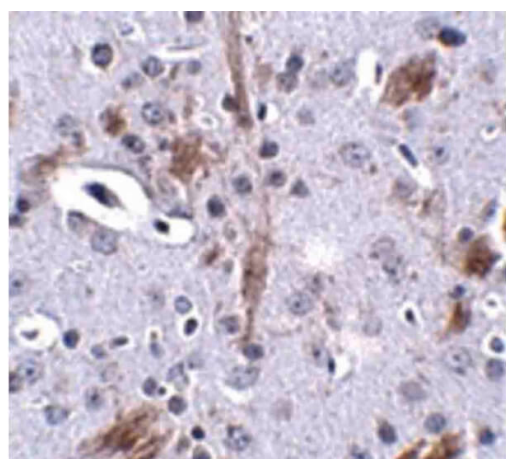
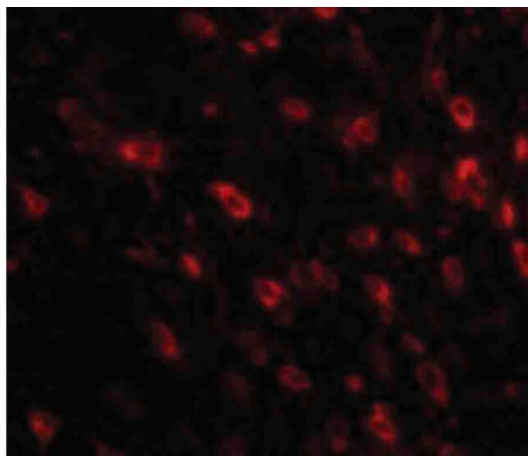
Shipping & Handling

Shipping Condition: Wet Ice

Storage Condition: Antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures.

Expiration: Expiration date is one (1) year from date of receipt.

Images



Immunofluorescence Microscopy

Immunofluorescence TTBK1 antibody. Tissue: Human brain cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: TTBK1 antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: TTBK1 is cytoplasmic. Staining: TTBK1 as red fluorescent signal.

Immunohistochemistry

Immunohistochemistry of TTBK1 antibody. Tissue: Mouse brain tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: TTBK1 antibody at 2.5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: TTBK1 is cytoplasmic. Staining: TTBK1 as precipitated red signal with hematoxylin purple nuclear counterstain.

Western Blot

Western Blot of TTBK1 antibody. Lane 1: Jurkat lysate. Load: 35 µg per lane. Primary Antibody: Anti-TTBK1 antibody at 1 µg/mL. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 143 kDa, 140 kDa for TTBK1. Other band(s): none.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.