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# TTBK2 Rabbit pAb

Catalog # AP98780

## Product Information

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| **Application** | WB, IHC-P, IHC-F, IF, E |
| **Primary Accession** | Q6IQ55 |
| **Other Accession** | Q6IQ55 |
| **Predicted** | Human, Mouse, Rabbit |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 137412 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human TTBK2/SCA11 |
| **Epitope Specificity** | 1151-1244/1244 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SIMILARITY** | Belongs to the protein kinase superfamily. CK1 Ser/Thr protein kinase family. Contains 1 protein kinase domain. |
| **SUBUNIT** | Interacts with CEP164. |
| **DISEASE** | Defects in TTBK2 are the cause of spinocerebellar ataxia type 11 (SCA11) [MIM:604432]. Spinocerebellar ataxia is a clinically and genetically heterogeneous group of cerebellar disorders. Patients show progressive incoordination of gait and often poor coordination of hands, speech and eye movements, due to degeneration of the cerebellum with variable involvement of the brainstem and spinal cord. SCA11 is an autosomal dominant cerebellar ataxia (ADCA). It is a relatively benign, late-onset, slowly progressive neurologic disorder. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | 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. [provided by RefSeq, Aug 2009]. |

## Additional Information

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| **Gene ID** | 146057 |
| **Other Names** | SCA11; TTBK; TTBK2_HUMAN; TTBK2; 2.7.11.1; KIAA0847; tau tubulin kinase 2; spinocerebellar ataxia 11 |
| **Dilution** | WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When |

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

## Protein Information

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| **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) |

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