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TTC21B Rabbit pAb

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Catalog # AP54718

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q7Z4L5
Reactivity	Rat
Predicted	Pig, Dog, Human, Mouse, Rabbit, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	150937
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TTC21B
Epitope Specificity	1221-1316/1316
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm.
DISEASE	Note=Ciliary dysfunction leads to a broad spectrum of disorders, collectively termed ciliopathies. Overlapping clinical features include retinal degeneration, renal cystic disease, skeletal abnormalities, fibrosis of various organ, and a complex range of anatomical and functional defects of the central and peripheral nervous system. The ciliopathy range of diseases includes Meckel-Gruber syndrome, Bardet-Biedl syndrome, Joubert syndrome, nephronophtisis, Senior-Loken syndrome, and Jeune asphyxiating thoracic dystrophy among others. TTC21B is causally associated with diverse ciliopathies, and also acts as a modifier gene across the ciliopathy spectrum. TTC21B mutations interact in trans with mutations in other ciliopathy-causing genes and contribute to disease manifestation and severity. Defects in TTC21B are the cause of nephronophthisis type 12 (NPHP12) [MIM:613820]. NPHP12 is an autosomal recessive disorder resulting in end-stage renal disease. It is a progressive tubulo-interstitial kidney disorder histologically characterized by modifications of the tubules with thickening of the basement membrane, interstitial fibrosis and, in the advanced stages, medullary cysts. Some patients manifest extra-renal features including retinal, skeletal and central nervous system defects. Defects in TTC21B are the cause of asphyxiating thoracic dystrophy type 4 (ATD4) [MIM:613819]. ATD4 is an autosomal recessive chondrodysplasia characterized by a severely constricted thoracic cage, short-limbed short stature, and polydactyly. It often leads to death in infancy because of respiratory insufficiency. Retinal degeneration, cystic renal disease and hepatic disease can be present in affected individuals who survive early childhood. Defects in TTC21B may be a cause of Bardet-Biedl syndrome (BBS) [MIM:209900]. A syndrome characterized by usually severe pigmentary retinopathy, early-onset obesity, polydactyly, hypogenitalism, renal malformation and mental retardation. Secondary features include diabetes mellitus, hypertension and congenital heart disease. Bardet-Biedl syndrome inheritance is autosomal recessive, but three mutated alleles (two

	at one locus, and a third at a second locus) may be required for clinical manifestation of some forms of the disease. Defects in TTC21B may be a cause of Joubert syndrome (JBTS) [MIM:213300]. A disorder presenting with cerebellar ataxia, oculomotor apraxia, hypotonia, neonatal breathing abnormalities and psychomotor delay. Neuroradiologically, it is characterized by cerebellar vermian hypoplasia/aplasia, thickened and reoriented superior cerebellar peduncles, and an abnormally large interpeduncular fossa, giving the appearance of a molar tooth on transaxial slices (molar tooth sign). Additional variable features include retinal dystrophy and renal disease.
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 member of TTC21 family, containing several tetratricopeptide repeat (TPR) domains. This protein is localized to the cilium axoneme, and may play a role in retrograde intraflagellar transport in cilia. Mutations in this gene are associated with various ciliopathies, nephronophthisis 12, and asphyxiating thoracic dystrophy 4. [provided by RefSeq, Oct 2011]

Additional Information

Gene ID	79809
Other Names	Tetratricopeptide repeat protein 21B, TPR repeat protein 21B, Intraflagellar transport 139 homolog, TTC21B (HGNC:25660)
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
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

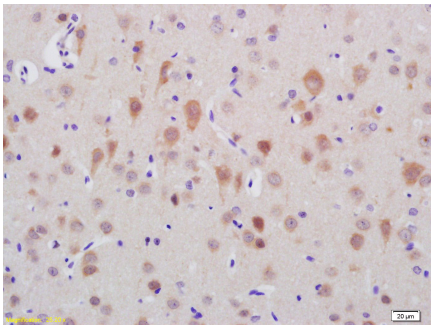
Name	TTC21B (HGNC:25660)
Function	Component of the IFT complex A (IFT-A), a complex required for retrograde ciliary transport and entry into cilia of G protein- coupled receptors (GPCRs). Essential for retrograde trafficking of IFT- 1, IFT-B and GPCRs (PubMed:27932497). Negatively modulates the SHH signal transduction (By similarity).
Cellular Location	Cytoplasm, cytoskeleton, cilium axoneme {ECO:0000250|UniProtKB:Q0HA38}

Background

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Images

Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling



bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;
Incubation: Anti-TTC21B Polyclonal Antibody, Unconjugated(AP54718) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.