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TULP3 Rabbit pAb

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Catalog # AP54565

Product Information

Application	WB
Primary Accession	O75386
Reactivity	Human
Predicted	Rat, Dog, Mouse, Chicken, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	49642
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TULP3
Epitope Specificity	251-350/442
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	Nucleus. Cell membrane. Cell projection, cilium (By similarity). Cytoplasm (By similarity). Secreted (By similarity). Note=Does not have a cleavable signal peptide and is secreted by a non-conventional pathway (By similarity). Translocates from the plasma membrane to the nucleus upon activation of guanine nucleotide-binding protein G(q) subunit alpha.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Mutations in the mouse Tub gene gradually lead to obesity, strongly resembling the late-onset obesity observed in the human population. In addition to excessive deposition of adipose tissue, mice with the Tub phenotype also suffer retinal degeneration and neurosensory hearing loss. A human homolog of the Tub gene has been identified, as have three related proteins, called Tubby-like protein 1 (TULP1), TULP2 and TULP3. When compared to TULP1 and TULP2, TULP3 has a wider tissue expression and is phylogenetically more similar to Tub than either TULP1 or TULP2. TULP1, expressed specifically in the retina, maps to the chromosomal region known to be involved in retinitis pigmentosa, while TULP2 maps within the minimal interval for the rod-cone dystrophy. TULP3 maps to human chromosome 12p13, and shares 69% homology to mouse TULP3. Human RNA from testis, ovary, thyroid and spinal cord contain highly detectable levels of TULP3 transcripts. In the retina, TULP3 is expressed specifically in the inner nuclear layer and ganglion cell layer. TULP1, TULP2 and TULP3 may comprise a unique family of bipartite transcription factors.

Additional Information

Gene ID	7289

Other Names	Tubby-related protein 3, Tubby-like protein 3, TULP3 (HGNC:12425), TUBL3
Dilution	WB=1:500-2000
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

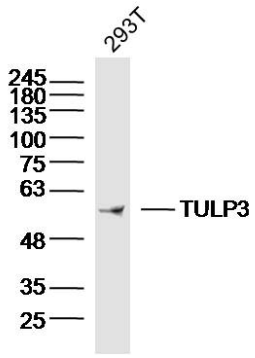
Name	TULP3 {ECO:0000303|PubMed:9828123, ECO:0000312|HGNC:HGNC:12425}
Function	Protein-protein adapter that drives transport of G protein- coupled receptors into primary cilia by mediating association between the intraflagellar transport complex A (IFT-A) and G protein-coupled receptors FFAR4, GPR45 and GPR161 (PubMed:11375483, PubMed:20889716, PubMed:31761534, PubMed:36775821). Acts as a negative regulator of the Shh signaling by promoting trafficking of GPR161 to cilia (PubMed:20889716, PubMed:36775821). During adipogenesis, regulates ciliary trafficking of FFAR4 in preadipocytes (PubMed:31761534). Promotes transport of GPR45 into primary cilia of neurons in paraventricular nucleus (PVN) of the hypothalamus (By similarity). Binds to phosphorylated inositide (phosphoinositide) lipids; both IFT- A- and phosphoinositide-binding properties are required to regulate ciliary G protein-coupled receptor trafficking (PubMed:11375483, PubMed:20889716). Besides its role in cilium localization, acts as a regulator of AMP-activated protein kinase (AMPK) activity in response to calorie restriction: binds lithocholic acid, a metabolite generated in response to calorie restriction, promoting TULP3 ability to activate SIRT1, which then deacetylates the ATP6V1E1 subunit of the V-ATPase complex, leading to (1) V-ATPase complex inhibition on lysosomes and (2) AMPK activation via the AXIN1-STK11/LKB1 axis (By similarity).
Cellular Location	Cell projection, cilium. Cell membrane. Nucleus. Cytoplasm Secreted {ECO:0000250|UniProtKB:O88413}. Note=Does not have a cleavable signal peptide and is secreted by a non-conventional pathway (By similarity). Translocates from the plasma membrane to the nucleus upon activation of guanine nucleotide-binding protein G(q) subunit alpha (PubMed:11375483). {ECO:0000250|UniProtKB:O88413, ECO:0000269|PubMed:11375483}
Tissue Location	Expressed at high levels in testis, ovaries, thyroid, and spinal cord.

Background

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Images

Sample:293T Cell (human) Lysate at 40 ug
Primary: Anti-TULP3(AP54565)at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 50 kD
Observed band size: 50 kD



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