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PTCHD2 Antibody
Catalog # ASC11421

Specification

PTCHD2 Antibody - Product Information

Application	**WB, IHC-P, IF, E**
Primary Accession	Q9P2K9
Other Accession	Q9P2K9, 149274653
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**PTCHD2 antibody can be used for detection of EPAC1 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL. For immunofluorescence start at 20 µg/mL.**

PTCHD2 Antibody - Additional Information

Gene ID **57540**

Target/Specificity
PTCHD2; At least two isoforms of PTCHD2 are known to exist. This antibody is specific for PTCHD2 and will not recognize the other DISP family of proteins.

Reconstitution & Storage
PTCHD2 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
PTCHD2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

PTCHD2 Antibody - Protein Information

Name DISP3 {ECO:0000303|PubMed:15645143, ECO:0000312|HGNC:HGNC:29251}

Function
Plays a role in neuronal proliferation and differentiation (PubMed:25281927). Plays a role in the accumulation of cellular cholesterol (By similarity). Involved in intracellular lipid droplet formation (PubMed:25281927). May contribute to cholesterol homeostasis in neuronal cells (By similarity).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein. Nucleus membrane; Multi- pass

membrane protein. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:B9U3F2}; Multi-pass membrane protein. Note=Predominantly localized to cholesterol-enriched domains within the membrane (PubMed:19179482). Localizes to cytoplasmic punctate vesicular structures (By similarity) {ECO:0000250|UniProtKB:B9U3F2, ECO:0000269|PubMed:19179482}

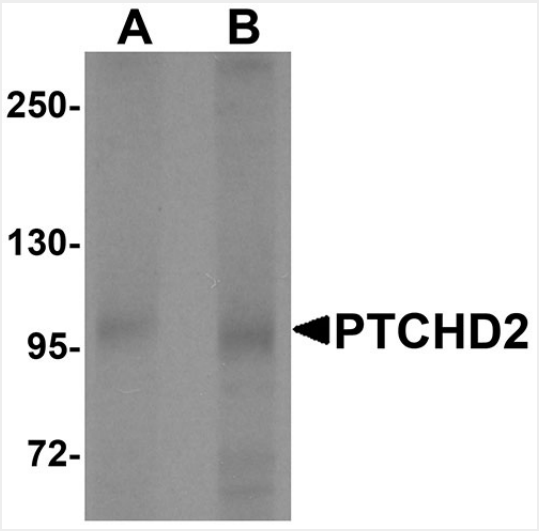
Tissue Location
Expressed in brain and testis (PubMed:15645143).

PTCHD2 Antibody - Protocols

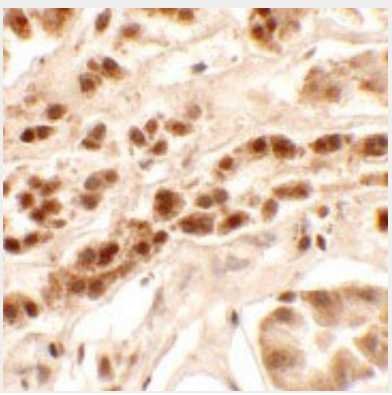
Provided below are standard protocols that you may find useful for product applications.

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

PTCHD2 Antibody - Images



Western blot analysis of PTCHD2 in mouse kidney tissue lysate with PTCHD2 antibody at (A) 1 and (B) 2 µg/mL.



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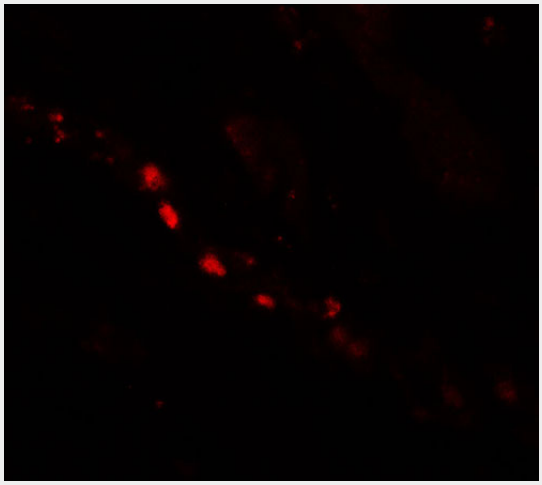
Immunohistochemistry of PTCHD2 in human kidney tissue with PTCHD2 antibody at 2.5 µg/mL.



Immunofluorescence of PTCHD2 in human kidney tissue with PTCHD2 antibody at 20 µg/mL.

PTCHD2 Antibody - Background

PTCHD2 Antibody: PTCHD2, also known as DISP3, is the third of three known homologs of the D. melanogaster protein Dispatched. It is a multi-transmembrane protein containing two PTCH/DISP domains and is thought to be involved in the release of lipid-anchored secreted proteins. Like DISP1 and DISP2, DISP3 has been implicated in signaling pathways during embryogenesis, tissue regeneration, and carcinogenesis. It is highly expressed in Purkinje cells, hippocampal neurons, and retinal ganglion cells. Recently, it has been shown that PTCHD2 localizes within the endoplasmic reticulum and colocalizes with cholesterol, and given that its expression is regulated by thyroid hormone (T3), it has been suggested that DISP3 may be a link between thyroid hormone and cholesterol metabolism.

PTCHD2 Antibody - References

Katoh Y and Katoh M. Identification and characterization of DISP3 gene in silico. Int. J. Oncol. 2005; 26:551-6
Katoh Y and Katoh M. Hedgehog signaling pathway and gastric cancer. Can. Biol. & Ther. 2005; 4:1050-4
Zikova M, Corlett A, Bendova Z, et al. DISP3, a sterol-sensing domain-containing protein that links thyroid hormone action and cholesterol metabolism. Mol. Endocrin. 2009; 23:520-8.