

FZD5 / Frizzled 5 Antibody (Cytoplasmic Domain)

Rabbit Polyclonal Antibody Catalog # ALS10762

Specification

FZD5 / Frizzled 5 Antibody (Cytoplasmic Domain) - Product Information

Application IHC
Primary Accession O13467
Reactivity Human
Host Rabbit
Clonality Polyclonal
Calculated MW 65kDa KDa

FZD5 / Frizzled 5 Antibody (Cytoplasmic Domain) - Additional Information

Gene ID 7855

Other Names

Frizzled-5, Fz-5, hFz5, FzE5, FZD5, C2orf31

Target/Specificity

Human FZD5 / Frizzled 5. BLAST analysis of the peptide immunogen showed no homology with other human proteins, except ART5 (44%).

Reconstitution & Storage

Long term: -70°C; Short term: +4°C

Precautions

FZD5 / Frizzled 5 Antibody (Cytoplasmic Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

FZD5 / Frizzled 5 Antibody (Cytoplasmic Domain) - Protein Information

Name FZD5

Synonyms C2orf31

Function

Receptor for Wnt proteins (PubMed:9054360, PubMed:10097073, PubMed:20530549). Can activate WNT2, WNT10B, WNT5A, but not WNT2B or WNT4 (in vitro); the in vivo situation may be different since not all of these are known to be coexpressed (By similarity). In neurons, activation of WNT7A promotes formation of synapses (PubMed:20530549). Functions in the canonical Wnt/beta-catenin signaling pathway. The canonical Wnt/beta-catenin signaling pathway leads to the activation of disheveled proteins, inhibition of GSK-3 kinase, nuclear accumulation of beta-catenin and activation of Wnt target genes (By similarity). A second signaling



pathway involving PKC and calcium fluxes has been seen for some family members, but it is not yet clear if it represents a distinct pathway or if it can be integrated in the canonical pathway, as PKC seems to be required for Wnt-mediated inactivation of GSK-3 kinase. Both pathways seem to involve interactions with G-proteins. May be involved in transduction and intercellular transmission of polarity information during tissue morphogenesis and/or in differentiated tissues (Probable). Plays a role in yolk sac angiogenesis and in placental vascularization (By similarity).

Cellular Location

Cell membrane {ECO:0000250|UniProtKB:Q8CHL0}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q8CHL0}. Golgi apparatus membrane {ECO:0000250|UniProtKB:Q9EQD0}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q9EQD0}. Synapse {ECO:0000250|UniProtKB:Q8CHL0}. Perikaryon {ECO:0000250|UniProtKB:Q8CHL0}. Cell projection, dendrite {ECO:0000250|UniProtKB:Q8CHL0}. Cell projection, axon {ECO:0000250|UniProtKB:Q8CHL0}. Note=Localized at the plasma membrane and also found at the Golgi. {ECO:0000250|UniProtKB:Q9EQD0}

Volume

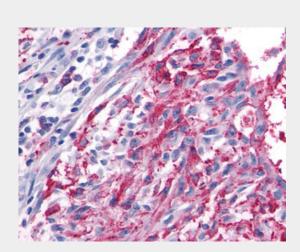
50 µl

FZD5 / Frizzled 5 Antibody (Cytoplasmic Domain) - Protocols

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

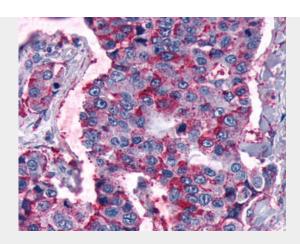
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

FZD5 / Frizzled 5 Antibody (Cytoplasmic Domain) - Images



Anti-FZD5 / Frizzled 5 antibody IHC of human Skin, Melanoma.





Anti-FZD5 / Frizzled 5 antibody IHC of human Lung, Non-Small Cell Carcinoma.

FZD5 / Frizzled 5 Antibody (Cytoplasmic Domain) - Background

Receptor for Wnt proteins. Most of frizzled receptors are coupled to the beta-catenin canonical signaling pathway, which leads to the activation of disheveled proteins, inhibition of GSK- 3 kinase, nuclear accumulation of beta-catenin and activation of Wnt target genes. A second signaling pathway involving PKC and calcium fluxes has been seen for some family members, but it is not yet clear if it represents a distinct pathway or if it can be integrated in the canonical pathway, as PKC seems to be required for Wnt-mediated inactivation of GSK-3 kinase. Both pathways seem to involve interactions with G-proteins. May be involved in transduction and intercellular transmission of polarity information during tissue morphogenesis and/or in differentiated tissues. Interacts specifically with Wnt5A to induce the beta- catenin pathway.

FZD5 / Frizzled 5 Antibody (Cytoplasmic Domain) - References

Wang Y., et al.J. Biol. Chem. 271:4468-4476(1996). Saitoh T., et al. Int. J. Oncol. 19:105-110(2001). Ota T., et al. Nat. Genet. 36:40-45(2004). Hillier L.W., et al. Nature 434:724-731(2005).

Tanaka S., et al. Proc. Natl. Acad. Sci. U.S.A. 95:10164-10169(1998).