

### FZD4 / Frizzled 4 Antibody (N-Terminus)

Rabbit Polyclonal Antibody Catalog # ALS10776

## **Specification**

## FZD4 / Frizzled 4 Antibody (N-Terminus) - Product Information

Application IHC
Primary Accession O9ULV1

Reactivity Human, Hamster, Monkey, Bovine, Dog

Host Rabbit
Clonality Polyclonal
Calculated MW 60kDa KDa

## FZD4 / Frizzled 4 Antibody (N-Terminus) - Additional Information

**Gene ID 8322** 

#### **Other Names**

Frizzled-4, Fz-4, hFz4, FzE4, CD344, FZD4

## Target/Specificity

Human FZD4 / Frizzled 4. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

### **Reconstitution & Storage**

Long term: -70°C; Short term: +4°C

#### **Precautions**

FZD4 / Frizzled 4 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

## FZD4 / Frizzled 4 Antibody (N-Terminus) - Protein Information

## Name FZD4

#### **Function**

Receptor for Wnt proteins (PubMed:<a href="http://www.uniprot.org/citations/30135577" target="\_blank">30135577</a>). Most frizzled receptors are coupled to the beta-catenin (CTNNB1) canonical signaling pathway, which leads to the activation of disheveled proteins, inhibition of GSK-3 kinase, nuclear accumulation of beta-catenin (CTNNB1) and activation of Wnt target genes (PubMed:<a href="http://www.uniprot.org/citations/30135577" target="\_blank">30135577</a>). Plays a critical role in retinal vascularization by acting as a receptor for Wnt proteins and norrin (NDP) (By similarity). In retina, it can be activated by Wnt protein-binding and also by Wnt-independent signaling via binding of norrin (NDP), promoting in both cases beta-catenin (CTNNB1) accumulation and stimulation of LEF/TCF-mediated transcriptional programs (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.

#### **Cellular Location**

Cell membrane; Multi-pass membrane protein

#### **Tissue Location**

Almost ubiquitous (PubMed:10544037). Largely expressed in adult heart, skeletal muscle, ovary, and fetal kidney (PubMed:10544037). Moderate amounts in adult liver, kidney, pancreas, spleen, and fetal lung, and small amounts in placenta, adult lung, prostate, testis, colon, fetal brain and liver (PubMed:10544037)

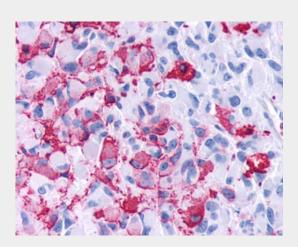
Volume 50 µl

## FZD4 / Frizzled 4 Antibody (N-Terminus) - Protocols

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

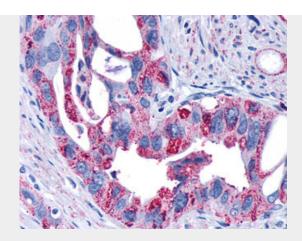
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# FZD4 / Frizzled 4 Antibody (N-Terminus) - Images



Anti-FZD4 / Frizzled 4 antibody IHC of human Brain, Glioblastoma.





Anti-FZD4 / Frizzled 4 antibody IHC of human Pancreas, Carcinoma.

## FZD4 / Frizzled 4 Antibody (N-Terminus) - Background

Receptor for Wnt proteins. Most of frizzled receptors are coupled to the beta-catenin (CTNNB1) canonical signaling pathway, which leads to the activation of disheveled proteins, inhibition of GSK-3 kinase, nuclear accumulation of beta-catenin (CTNNB1) and activation of Wnt target genes. Plays a critical role in retinal vascularization by acting as a receptor for Wnt proteins and norrin (NDP). In retina, it can be both activated by Wnt protein-binding, but also by a Wnt-independent signaling via binding of norrin (NDP), promoting in both cases beta-catenin (CTNNB1) accumulation and stimulation of LEF/TCF-mediated transcriptional programs. 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.

## FZD4 / Frizzled 4 Antibody (N-Terminus) - References

Kirikoshi H.,et al.Biochem. Biophys. Res. Commun. 264:955-961(1999). Kopatz S.A.,et al.Submitted (NOV-2003) to the EMBL/GenBank/DDBJ databases. Ota T.,et al.Nat. Genet. 36:40-45(2004). Taylor T.D.,et al.Nature 440:497-500(2006). Tanaka S.,et al.Proc. Natl. Acad. Sci. U.S.A. 95:10164-10169(1998).