

### FZD7 / Frizzled 7 Antibody (N-Terminus)

Rabbit Polyclonal Antibody Catalog # ALS10789

#### **Specification**

### FZD7 / Frizzled 7 Antibody (N-Terminus) - Product Information

Application IHC
Primary Accession 075084

Reactivity Human, Mouse, Rabbit, Hamster, Monkey,

Pig, Bovine, Dog

Host Rabbit
Clonality Polyclonal
Calculated MW 64kDa KDa

## FZD7 / Frizzled 7 Antibody (N-Terminus) - Additional Information

**Gene ID 8324** 

**Other Names** 

Frizzled-7, Fz-7, hFz7, FzE3, FZD7

#### Target/Specificity

Human FZD7 / Frizzled 7. BLAST analysis of the peptide immunogen showed no homology with other human proteins, except FZD1 (60%), FZD2 (60%).

# **Reconstitution & Storage**

Long term: -70°C; Short term: +4°C

#### **Precautions**

FZD7 / Frizzled 7 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

#### FZD7 / Frizzled 7 Antibody (N-Terminus) - Protein Information

#### Name FZD7

## **Function**

Receptor for Wnt proteins. Most 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. Activation by WNT8 induces expression of beta-catenin target genes (By similarity). Following ligand activation, binds to CCDC88C/DAPLE which displaces DVL1 from FZD7 and leads to inhibition of canonical Wnt signaling, activation of G-proteins by CCDC88C and triggering of non-canonical Wnt responses (PubMed:<a

href="http://www.uniprot.org/citations/26126266" target="\_blank">26126266</a>). 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. Endosome membrane; Multi-pass membrane protein. Note=Associated to the plasma membrane in the presence of FZD7 and phosphatidylinositol 4,5-bisphosphate (PIP2). Localized in recycling endosomes in other conditions

## **Tissue Location**

High expression in adult skeletal muscle and fetal kidney, followed by fetal lung, adult heart, brain, and placenta Specifically expressed in squamous cell esophageal carcinomas

# Volume

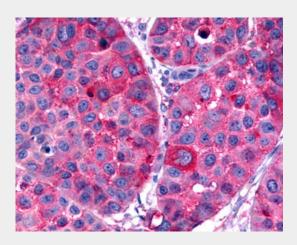
50 µl

# FZD7 / Frizzled 7 Antibody (N-Terminus) - Protocols

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

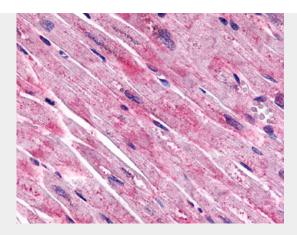
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# FZD7 / Frizzled 7 Antibody (N-Terminus) - Images

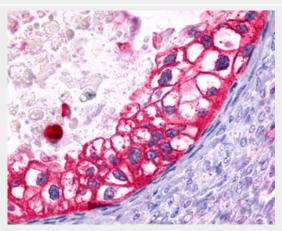


Anti-FZD7 / Frizzled 7 antibody IHC of human Skin, Melanoma.

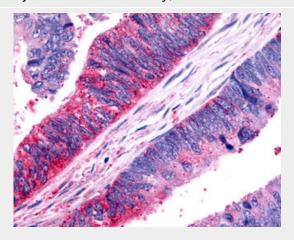




Anti-FZD7 / Frizzled 7 antibody ALS10789 IHC of human heart, cardiac myocytes.

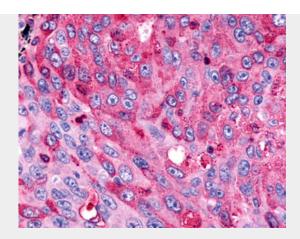


Anti-FZD7 / Frizzled 7 antibody IHC of human Ovary, Carcinoma.



Anti-FZD7 / Frizzled 7 antibody IHC of human Colon, Carcinoma.





Anti-FZD7 / Frizzled 7 antibody IHC of human Lung, Non-Small Cell Carcinoma.

# FZD7 / Frizzled 7 Antibody (N-Terminus) - 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.

# FZD7 / Frizzled 7 Antibody (N-Terminus) - References

Tanaka S., et al. Proc. Natl. Acad. Sci. U.S.A. 95:10164-10169(1998). Hillier L.W., et al. Nature 434:724-731(2005). Mural R.J., et al. Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases. Sagara N., et al. Biochem. Biophys. Res. Commun. 252:117-122(1998). Kwon H.S., et al. Mol. Cell. Biol. 29:2139-2154(2009).