

FZD3 / Frizzled 3 Antibody (N-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS10768

Specification

FZD3 / Frizzled 3 Antibody (N-Terminus) - Product Information

Application	IHC
Primary Accession	O9NPG1
Reactivity	Human, Mouse, Rabbit, Hamster, Monkey, Pig, Chicken, Horse, Bovine, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	76kDa KDa

FZD3 / Frizzled 3 Antibody (N-Terminus) - Additional Information

Gene ID 7976

Other Names

Frizzled-3, Fz-3, hFz3, FZD3

Target/Specificity

Human FZD3 / Frizzled 3. BLAST analysis of the peptide immunogen showed no homology with other human proteins, except FZD6 (39%).

Reconstitution & Storage

Long term: -70°C; Short term: +4°C

Precautions

FZD3 / Frizzled 3 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

FZD3 / Frizzled 3 Antibody (N-Terminus) - Protein Information

Name FZD3

Function

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. Activation by Wnt5A stimulates PKC activity via a G-protein-dependent mechanism. Involved in transduction and intercellular transmission of polarity information during tissue morphogenesis and/or in differentiated tissues. Plays a role in controlling early axon growth and guidance processes necessary for the formation of a subset of central and peripheral major fiber tracts. Required for the development of major fiber tracts in the

central nervous system, including: the anterior commissure, the corpus callosum, the thalamocortical, corticothalamic and nigrostriatal tracts, the corticospinal tract, the fasciculus retroflexus, the mammillothalamic tract, the medial lemniscus, and ascending fiber tracts from the spinal cord to the brain. In the peripheral nervous system, controls axon growth in distinct populations of cranial and spinal motor neurons, including the facial branchiomotor nerve, the hypoglossal nerve, the phrenic nerve, and motor nerves innervating dorsal limbs. Involved in the migration of cranial neural crest cells. May also be implicated in the transmission of sensory information from the trunk and limbs to the brain. Controls commissural sensory axons guidance after midline crossing along the anterior-posterior axis in the developing spinal cord in a Wnt-dependent signaling pathway. Together with FZD6, is involved in the neural tube closure and plays a role in the regulation of the establishment of planar cell polarity (PCP), particularly in the orientation of asymmetric bundles of stereocilia on the apical faces of a subset of auditory and vestibular sensory cells located in the inner ear. Promotes neurogenesis by maintaining sympathetic neuroblasts within the cell cycle in a beta- catenin-dependent manner (By similarity).

Cellular Location

Membrane; Multi-pass membrane protein. Cell membrane; Multi-pass membrane protein. Cell surface {ECO:0000250|UniProtKB:Q61086}. Apical cell membrane {ECO:0000250|UniProtKB:Q61086}; Multi-pass membrane protein Note=Colocalizes with FZD6 at the apical face of the cell (By similarity). {ECO:0000250|UniProtKB:Q61086}

Tissue Location

Widely expressed. Relatively high expression in the CNS, including regions of the limbic system, in kidney, pancreas, skeletal muscle, uterus and testis

Volume

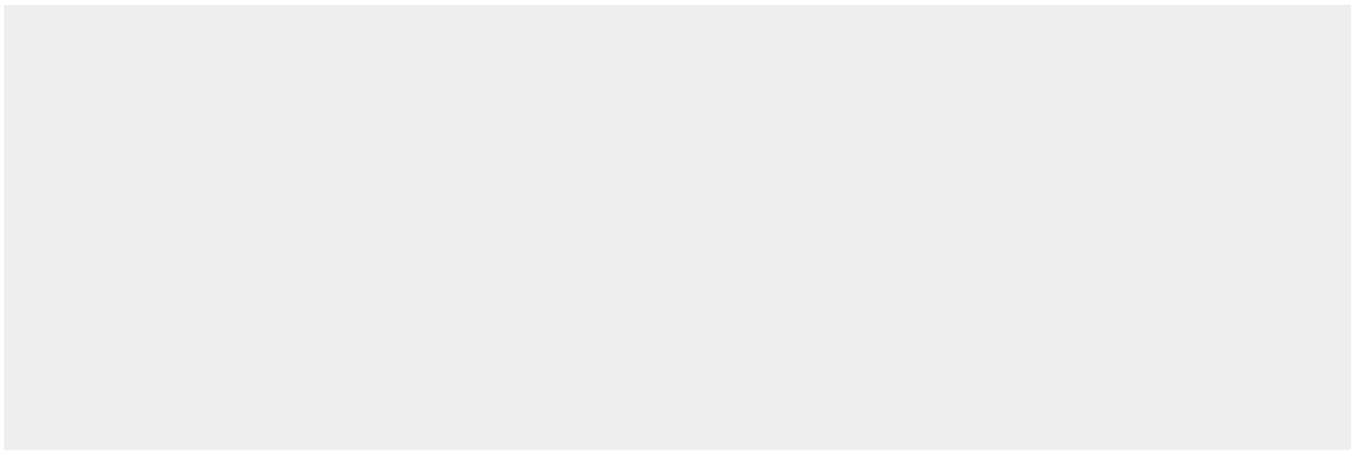
50 µl

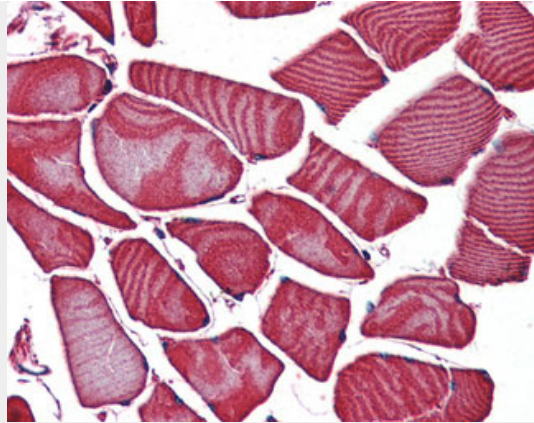
FZD3 / Frizzled 3 Antibody (N-Terminus) - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

FZD3 / Frizzled 3 Antibody (N-Terminus) - Images





Anti-FZD3 / Frizzled 3 antibody ALS10768 IHC of human skeletal muscle.

FZD3 / Frizzled 3 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. Activation by Wnt5A stimulates PKC activity via a G-protein-dependent mechanism. Involved in transduction and intercellular transmission of polarity information during tissue morphogenesis and/or in differentiated tissues. Plays a role in controlling early axon growth and guidance processes necessary for the formation of a subset of central and peripheral major fiber tracts. Required for the development of major fiber tracts in the central nervous system, including: the anterior commissure, the corpus callosum, the thalamocortical, corticothalamic and nigrostriatal tracts, the corticospinal tract, the fasciculus retroflexus, the mammillothalamic tract, the medial lemniscus, and ascending fiber tracts from the spinal cord to the brain. In the peripheral nervous system, controls axon growth in distinct populations of cranial and spinal motor neurons, including the facial branchiomotor nerve, the hypoglossal nerve, the phrenic nerve, and motor nerves innervating dorsal limbs. Involved in the migration of cranial neural crest cells. May also be implicated in the transmission of sensory information from the trunk and limbs to the brain. Controls commissural sensory axons guidance after midline crossing along the anterior-posterior axis in the developing spinal cord in a Wnt-dependent signaling pathway. Together with FZD6, is involved in the neural tube closure and plays a role in the regulation of the establishment of planar cell polarity (PCP), particularly in the orientation of asymmetric bundles of stereocilia on the apical faces of a subset of auditory and vestibular sensory cells located in the inner ear. Promotes neurogenesis by maintaining sympathetic neuroblasts within the cell cycle in a beta-catenin-dependent manner (By similarity).

FZD3 / Frizzled 3 Antibody (N-Terminus) - References

- Kirikoshi H., et al. *Biochem. Biophys. Res. Commun.* 271:8-14(2000).
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- Hung B.S., et al. *J. Invest. Dermatol.* 116:940-946(2001).
- Ota T., et al. *Nat. Genet.* 36:40-45(2004).
- Zhang Z., et al. *Protein Sci.* 13:2819-2824(2004).