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FZD3 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18664b

Product Information

Application	WB, E
Primary Accession	Q9NPG1
Other Accession	Q61086, NP_059108.1
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37407
Calculated MW	76263
Antigen Region	496-525

Additional Information

Gene ID	7976
Other Names	Frizzled-3, Fz-3, hFz3, FZD3
Target/Specificity	This FZD3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 496-525 amino acids from the C-terminal region of human FZD3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	FZD3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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 branchimotor 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

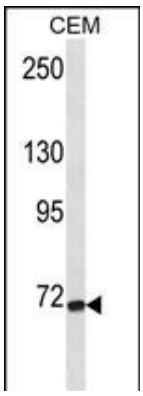
Background

This gene is a member of the frizzled gene family. Members of this family encode seven-transmembrane domain proteins that are receptors for the Wingless type MMTV integration site family of signaling proteins. Most frizzled receptors are coupled to the beta-catenin canonical signaling pathway. The function of this protein is unknown, although it may play a role in mammalian hair follicle development.

References

Inkster, B., et al. Neuroimage 53(3):908-917(2010)
Kawano, Y., et al. Br. J. Cancer 100(7):1165-1174(2009)
Gregorio, S.P., et al. Psychiatry Res 165 (1-2), 1-9 (2009) :
Wang, H.X., et al. Mol. Hum. Reprod. 15(1):11-17(2009)
Kishimoto, M., et al. Behav Brain Funct 4, 37 (2008) :

Images



FZD3 Antibody (C-term) (Cat. #AP18664b) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the FZD3 antibody detected the FZD3 protein (arrow).