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FZD7 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP18021c

Product Information

Application	WB, E
Primary Accession	O75084
Other Accession	Q61090, O57329, NP_003498.1
Reactivity	Human
Predicted	Chicken, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB25727
Calculated MW	63620
Antigen Region	202-229

Additional Information

Gene ID	8324
Other Names	Frizzled-7, Fz-7, hFz7, FzE3, FZD7
Target/Specificity	This FZD7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 202-229 amino acids from the Central region of human FZD7.
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	FZD7 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

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:26126266). 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

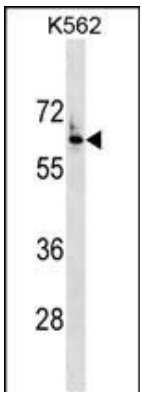
Background

Members of the 'frizzled' gene family encode 7-transmembrane domain proteins that are receptors for Wnt signaling proteins. The FZD7 protein contains an N-terminal signal sequence, 10 cysteine residues typical of the cysteine-rich extracellular domain of Fz family members, 7 putative transmembrane domains, and an intracellular C-terminal tail with a PDZ domain-binding motif. FZD7 gene expression may downregulate APC function and enhance beta-catenin-mediated signals in poorly differentiated human esophageal carcinomas.

References

Guey, L.T., et al. Eur. Urol. 57(2):283-292(2010)
Vincan, E., et al. Dev. Dyn. 239(1):311-317(2010)
Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :
Hosgood, H.D. III, et al. Respir Med 103(12):1866-1870(2009)
Ueno, K., et al. Br. J. Cancer 101(8):1374-1381(2009)

Images



FZD7 Antibody (Center) (Cat. #AP18021c) western blot analysis in K562 cell line lysates (35ug/lane).This demonstrates the FZD7 antibody detected the FZD7 protein (arrow).