Product name:	Frizzled-4 Rabbit Polyclonal Antibody
Cat number:	ABN11144
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	Synthetic peptide from human protein at AA range: 11-60
Reactivity:	Human,Mouse,Rat
Applications:	IHC 1:50-1:200,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

frizzled class receptor 4(FZD4) Homo sapiens 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. This protein may play a role as a positive regulator of the Wingless type MMTV integration site signaling pathway. A transcript variant retaining intronic sequence and encoding a shorter isoform has been described, however, its expression is not supported by other experimental evidence. [provided by RefSeq, Jul 2008],disease:Defects in FZD4 are the cause of vitreoretinopathy exudative type 1 (EVR1) [MIM:133780]; also known as autosomal dominant familial exudative vitreoretinopathy (FEVR) or Criswick-Schepens syndrome. EVR1 is a disorder of the retinal vasculature characterized by an abrupt cessation of growth of peripheral capillaries, leading to an avascular peripheral retina. This may lead to compensatory retinal neovascularization, which is thought to be induced by hypoxia from the initial avascular insult. New vessels are prone to leakage and rupture causing exudates and bleeding, followed by scarring, retinal detachment and blindness. Clinical features can be highly variable, even within the same family. Patients with mild forms of the disease are asymptomatic, and their only disease-related abnormality is an arc of avascular retina in the extreme temporal periphery.,domain:Lys-Thr-X-X-X-Trp motif is involved in the activation of the Wnt/beta-catenin signaling pathway.,domain:The FZ domain is involved in binding with Wnt ligands.,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. May be involved in transduction and intercellular transmission of polarity information during tissue morphogenesis and/or in differentiated tissues. Plays a critical role in retinal angiogenesis.,similarity:Belongs to the G-protein coupled receptor Fz/Smo family.,similarity:Contains 1 FZ (frizzled) domain.,subunit:Binds NDP. Interacts with MAGI3.,tissue specificity:Almost ubiquitous. Largely expressed in adult heart, skeletal muscle, ovary, and fetal kidney. 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.,