FZD4 Immunizing Blocking Peptide

PRODUCT OVERVIEW

Product Name	FZD4, Blocking Peptide
Full Product Name	FZD4 Immunizing Peptide
Product Gene Name	FZD4 blocking peptide
Product Synonym Names	FZD4; frizzled homolog 4 (Drosophila); CD344; EVR1; FEVR; FZD4S; Fz-4; FzE4; GPCR; MGC34390; WNT receptor frizzled-4; exudative vitreoretinopathy 1 (autosomal dominant; Criswick-Schepens syndrome); frizzled 4
Sequence	C-KIRSNLQK DGTKT
Species Reactivity	Human, Mouse, Rat
Form/Format	100ug of dried peptide
Preparation and Storage	Shipped at ambient temperature, store at -20 degree C
Antibody/Peptide Pairs	FZD4 peptide (MBS428060) is used for blocking the activity of FZD4 antibody (MBS423263)
Molecular Weight	59,881 Da
OMIM	133780
ISO Certification	Manufactured in an ISO 9001:2008 Certified Laboratory.
Related Product Information for FZD4 blocking peptide	MBS428060 is a blocking peptide targeting FZD4. Also known as FZD4 Immunizing Peptide. Reactive in Human, Mouse, Rat.
Other Notes	Small volumes of FZD4 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for FZD4. It may not necessarily be applicable to this product.

NCBI GI #	22547161
NCBI GeneID	8322
NCBI Accession #	NP_036325.2
UniProt Secondary Accession #	Q14C97; Q6S9E4; A8K9Q3
UniProt Related Accession #	Q9ULV1
GenBank Nucleotide #	NM_012193.3
NCBI Official Full Name	frizzled-4
NCBI Official Synonym Full Names	frizzled class receptor 4
NCBI Official Symbol	FZD4
NCBI Official Synonym Symbols	Fz4; EVR1; FEVR; Fz-4; FzE4; GPCR; hFz4; CD344; FZD4S
UniProt Protein Name	Frizzled-4
UniProt Synonym Protein Names	FzE4; CD_antigen: CD344
UniProt Gene Name	FZD4

UniProt Synonym Gene Names	Fz-4; hFz4
UniProt Entry Name	FZD4_HUMAN
NCBI Protein Information	frizzled-4
NCBI Summary for FZD4	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]
UniProt Comments for FZD4	FZD4: Receptor for Wnt proteins. Most of frizzled receptors are coupled to the beta-catenin (CTNNB1) canonical signaling pathway, which leads to the activation of disheveled proteins, inhibition of GSK-3 kinase, nuclear accumulation of beta-catenin (CTNNB1) and activation of Wnt target genes. Plays a critical role in retinal vascularization by acting as a receptor for Wnt proteins and norrin (NDP). In retina, it can be both activated by Wnt protein-binding, but also by a Wnt-independent signaling via binding of norrin (NDP), promoting in both cases beta-catenin (CTNNB1) accumulation and stimulation of LEF/TCF-mediated transcriptional programs. 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. Defects in FZD4 are the cause of vitreoretinopathy exudative type 1 (EVR1); 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. Belongs to the G-protein coupled receptor Fz/Smo family. Protein type: Receptor, GPCR; GPCR, Fz/Smo family; Membrane protein, integral; Membrane protein, multi-pass Chromosomal Location of Human Ortholog: 11q14.2 Cellular Component: cell surface; integral to membrane; integral to plasma membrane; intercellular junction; plasma membrane Molecular Function: cytokine binding; G-protein coupled receptor activity; PDZ domain binding; protein binding; protein heterodimerization activity; protein homodimerization activity; ubiquitin protein ligase binding; Wnt receptor activity; Wnt-protein binding Biological Process: G-protein coupled receptor protein signaling pathway; locomotion during locomotory behavior; neuron differentiation; positive regulation of JNK activity; positive regulation of transcription factor activity; positive regulation of transcription, DNA-dependent; progesterone secretion; regulation of vascular endothelial growth factor receptor signaling pathway; sensory perception of sound; vasculogenesis; Wnt receptor signaling pathway; Wnt receptor signaling pathway through beta-catenin; Wnt receptor signaling pathway, calcium modulating pathway; Wnt receptor signaling pathway, planar cell polarity pathway Disease: Exudative Vitreoretinopathy 1
Research Articles on FZD4	**1.** These structural, biophysical and cellular data, map Fz4 and putative Lrp5/6 binding sites to distinct patches on Norrin, and reveal a GAG binding site spanning Norrin and Fz4 cysteine-rich domain.
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