

Product datasheet

# Recombinant Human Frizzled 4 protein (Fc Chimera His Tag) ab223098

1 Image

Description

<b>Product name</b>	Recombinant Human Frizzled 4 protein (Fc Chimera His Tag)	
<b>Purity</b>	> 90 % SDS-PAGE. ab223098 was purified using conventional chromatography techniques.	
<b>Endotoxin level</b>	< 1.000 Eu/µg	
<b>Expression system</b>	Baculovirus infected insect cells	
<b>Accession</b>	<a href="#">Q9ULV1</a>	
<b>Protein length</b>	Protein fragment	
<b>Animal free</b>	No	
<b>Nature</b>	Recombinant	
<b>Species</b>	Human	
<b>Sequence</b>	<pre>ADPFGDEEERRCDPIRISMQNLGYNVTKMPNLVGHE LQTDDELQLTTFT PLIQYGCSSQLQFFLCSVYVPMCTEKINIPGICGGMCL SVKRRCEPVLK EFGFAWPESLNCSEKFPQNDHNMCMGPGDDEEVP LPHKTPIQPGECHS VGTNSDQYMWKRSNLNCKGVDAGLYSRSAKEFTDI WLEPKSCDKTHT CPPCPAPELLGGPSVFLFPPKPKDTLMISRTPEVTCV VVDVSHEDPEVKF NWYVDGVEVHNAKTKPREEQYNSTYRVVSVLTVLHQD WLNKKEYKCKVSN KALPAPIEKTISKAKGQPREPQVYTLPPSRDELTKNQV SLTCLVKGFYPS DIAVEWESNGQPENNYKTPPVLDSDGSFFLYSKLTV DKSRWQQGNVFC SVMHEALHNHYTQKSLSLSPGKHHHHHH</pre>	
<b>Predicted molecular weight</b>	48 kDa including tags	
<b>Amino acids</b>	37 to 222	
<b>Tags</b>	His tag C-Terminus	
<b>Additional sequence information</b>	Extracellular domain fused to hlgG-His-tag at C-terminus (NP_036325).	

## Specifications

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Our [Abpromise guarantee](#) covers the use of **ab223098** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<b>Applications</b>	SDS-PAGE
<b>Form</b>	Liquid

## Preparation and Storage

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<b>Stability and Storage</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.  pH: 7.40 Constituents: 10% Glycerol, PBS
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## General Info

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<b>Function</b>	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.
<b>Tissue specificity</b>	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.
<b>Involvement in disease</b>	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.
<b>Sequence similarities</b>	Belongs to the G-protein coupled receptor Fz/Smo family. Contains 1 FZ (frizzled) domain.
<b>Domain</b>	Lys-Thr-X-X-X-Trp motif interacts with the PDZ domain of Dvl (Disheveled) family members and is involved in the activation of the Wnt/beta-catenin signaling pathway. The FZ domain is involved in binding with Wnt ligands.
<b>Cellular localization</b>	Membrane. Cell membrane.

## Images

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15% SDS-PAGE analysis of 3 µg ab223098.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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