Mouse Frizzled-1 / FZD1 Protein (His Tag)

Catalog Number: **50092-M08H**

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General Information

Gene Name Synonym:

AW227548; FZ-1; Fz1

Protein Construction:

A DNA sequence encoding the mouse FZD1 (NP_067432.2) extracellular domain (Met 1-His 248) was expressed with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 97 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Val 69

Molecular Mass:

The secreted recombinant mouse FZD1 pro form consists of 191 amino acids and has a predicted molecular mass of 21 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rm FZD1 is approximately 35-40 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

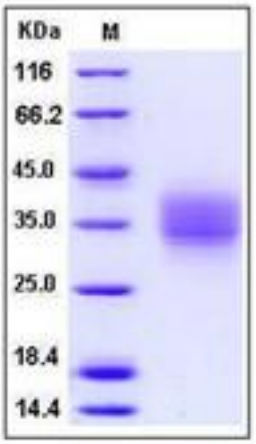
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Frizzled-1, also known as FZD1, belongs to the G-protein coupled receptor Fz/Smo family. FZD1 contains a signal peptide, a cysteine-rich domain in the N-terminal extracellular region, 7 transmembrane domains, and a C-terminal PDZ domain-binding motif. FZD1 is expressed in adult heart, placenta, lung, kidney, pancreas, prostate, and ovary and in fetal lung and kidney. Frizzled is a family of G protein-coupled receptor proteins that serve as receptors in the Wnt signaling pathway and other signaling pathways. When activated, Frizzled leads to activation of Dishevelled in the cytosol. Frizzled proteins and the genes encoding them have been identified in an array of animals, from sponges to humans. Frizzled proteins play key roles in governing cell polarity, embryonic development, formation of neural synapses, cell proliferation, and many other processes in developing and adult organisms. 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.

References

1.Gazit A., *et al.*,(1999), Human frizzled 1 interacts with transforming Wnts to transduce a TCF dependent transcriptional response. Oncogene 18:5959-5966.
2.Sagara N., *et al.*, (1998), Molecular cloning, differential expression, and chromosomal localization of human frizzled-1, frizzled-2, and frizzled-7.Biochem. Biophys. Res. Commun. 252:117-122.
3.Scherer S.W., *et al.*,(2003), Human chromosome 7: DNA sequence and biology.Science 300:767-772.