

Recombinant Rat FZD4 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52597

Size: 10ug, 100ug

Protein Name: Frizzled-4 (Fz-4) (rFz4) (CD antigen CD344)

Synonym: Fzd4

UniProt ID: Q9QZH0

UniProt Link: www.uniprot.org/uniprotkb/Q9QZH0/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 538 AA

Molecular Weight: 60 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAWQGTGPSVRGMPGGVRLRLGLLLLQLLLLQRPALGFGDEEERRCDPIRIAMCQNLGYNVTKMP
NLVGHELQTD AELQLTTFTPLIQYGCSSQLQFFLC SVYVPMCTE KINIPIGPCGGMCLSVKRRCEPVL
KEFGFAWPDSLNC SKFPQNDHNHMCMEGPGDEEVPLPHKTPIQPGE ECHSVGTNSDQYIWVKRS
LNCVLKCGYDAGLYSRSAKEFTDIWMAVWASLCFISTTFTVL TFLIDSSRFSYPERPIIFLSMCYNIYSI
AYIVRLTVGRERISCD FEEAAEPVLIQEGLKNTGCAIIFLLMYFFGMASSIWWILT LTWFLAAGLKWG
HEAIEMHSSYFHIAAWAIPAVKTIVILIMRLVDADEL TGLCYVGNQSLDAL TGFVVAPLFTYLVIGTLFIA
AGLVALFKIRSNLQKDGT KTDKLERLMVKIGVFSVLYTVPATCVIACYFYEISNWALFRYSADDSNMA
VEMLKIFMSLLVGITSGMWIWSAKTLHTWQKCSNRLVNSGKVKREKRGNGWVKPGKGNETVV

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Frizzled-4 (Fz-4) (rFz4) (CD antigen CD344) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Receptor for Wnt proteins (By similarity). 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 (By similarity). Plays a critical role in retinal vascularization by acting as a receptor for Wnt proteins and norrin (NDP) (By similarity). 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 (By similarity). 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 (By similarity). Both pathways seem to involve interactions with G proteins (By similarity). May be involved in transduction and intercellular transmission of polarity information during tissue morphogenesis and/or in differentiated tissues (By similarity).

Subcellular Localization: Cell membrane ; Multi-pass membrane protein .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.