

Datasheet for ABIN3135349 FZD4 Protein (AA 37-537) (rho-1D4 tag)



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1 Image

Overview

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| Quantity: | 1 mg |
| Target: | FZD4 |
| Protein Characteristics: | AA 37-537 |
| Origin: | Mouse |
| Source: | Insect Cells |
| Protein Type: | Recombinant |
| Purification tag / Conjugate: | This FZD4 protein is labelled with rho-1D4 tag. |
| Application: | Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys) |

Product Details

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| Sequence: | <p>FGDEEERRCD PIRIAMCQNL GYNVTKMPNL VGHELQTD AE LQLTTFTPLI QYGCSSQLQF</p> <p>FLCSVYVPMC TEKINIPIGP CGGMCLSVKR RCEPVLREFG FAWPDTLNCS KFPPQNDHNNH</p> <p>MCMEGPGDEE VPLPHKTPIQ PGEECHSVGS NSDQYIWWKR SLNCVLKCGY DAGLYSRS AK</p> <p>EFTDIWMAVW ASLCFISTTF TVLTFLIDSS RFSYPERPII FLSMCYN IYS IAYIVRLTVG RERISCD FEE</p> <p>AAEPVLIQEG LKNTGCAIIF LLMYFFGMAS SIWWVILTLT WFLAAGLKWG HEAIEMHSS Y</p> <p>FHIAAWAIPA VKTIVILIMR LVDAD ELTGL CYVGNQNLDA LTGFV VAPLF TYLVIGTLFI</p> <p>AAGLVALFKI RSNLQKDGTK TDKLERLMVK IGVFSVLYTV PATCVIACYF YEISNWALFR</p> <p>YSADDSNMAV EMLKIFMSLL VGITSGMWIW SAKTLHTWQK CSNRLVNSGK VKREKRGNGW</p> <p>VKPGKGNETV V</p> |
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Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.

Product Details

- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
 - Mouse Fzd4 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
 - State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made to order protein and will be made for the first time for your order. Our experts in the lab will ensure that you receive a correctly folded protein.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered.

The concentration of our recombinant proteins is measured using the absorbance at 280nm.

The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer.

The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.

- Purification:
- Three step purification of membrane proteins expressed in baculovirus infected SF9 insect cells:
1. Membrane proteins are fractionated by ultracentrifugation and subsequently solubilized with different detergents (detergent screen). Samples are analyzed by Western blot.
 2. The best performing detergent is used for solubilization and the proteins are purified via their rho1D4 tag via two rho1D4 antibody columns: one DTT resistant, the other one not. Eluate fractions are analyzed by Western blot.
 3. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.

Purity: >95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

Sterility: 0.22 µm filtered

Endotoxin Level: Protein is endotoxin-free.

Grade: Crystallography grade

Target Details

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| Target: | FZD4 |
| Alternative Name: | Fzd4 (FZD4 Products) |
| Background: | 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. Activation by Wnt5A stimulates PKC activity via a G-protein-dependent mechanism. {ECO:0000269 PubMed:10097073, ECO:0000269 PubMed:19837033}. |
| Molecular Weight: | 57.7 kDa Including tag. |
| UniProt: | Q61088 |
| Pathways: | WNT Signaling , Hormone Transport , Sensory Perception of Sound |

Application Details

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| Application Notes: | In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though. |
| Comment: | Protein has not been tested for activity yet. In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest. |
| Restrictions: | For Research Use only |

Handling

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| Format: | Liquid |
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Handling

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| Buffer: | 100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value is at the discretion of the manufacturer. |
| Handling Advice: | Avoid repeated freeze-thaw cycles. |
| Storage: | -80 °C |
| Storage Comment: | Store at -80°C. |
| Expiry Date: | Unlimited (if stored properly) |

Images



Image 1. „Crystallography Grade“ protein due to multi-step, protein-specific purification process