# Recombinant FRIZ protein (His tag)

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| **Catalog Number** | 532033 |
| **Synonyms** | Frizzled-1; dFz1 |
| **Species** | Drosophila melanogaster |
| **Expression System** | E. coli |
| **Accession** | P18537 |
| **Gene ID** | 45307 |
| **Molecular Weight** | Predictes a molecular mass of 14.89 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band. |

## Product Information

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| **Sequence Region** | 50-166 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >89%, by SDS-PAGE with Coomassie Brilliant Blue staining. |
| **Endotoxin** | Not tested. |
| **Activity** | Not tested. |
| **Stability** | Samples are stable for up to twelve months from date of receipt at -70℃ |
| **Protein Construction** | DNA encoding 50-166 aa (P18537) were fused with 6His tag. |

## Storage & Handling

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| **Reconstitution** | Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. |
| **Storage** | Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |
| **Shipping** | In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | This recombinant protein product features a stable and soluble fragment (residues 50-166) of the Drosophila melanogaster Frizzled-1 (dFz1) receptor. This fragment was computationally selected for structural integrity and solubility, making it an ideal tool for structural biology studies and biochemical assays investigating Wnt signaling pathways.<br>Frizzled-1 (dFz1) is a receptor for Wnt proteins and primarily functions through the beta-catenin canonical signaling pathway. This pathway involves activation of disheveled proteins, inhibition of GSK-3 kinase, and nuclear accumulation of beta-catenin to regulate Wnt target genes. Additionally, frizzled receptors may interact with G-proteins and participate in secondary pathways involving PKC and calcium fluxes. The full-length protein is localized to the cell membrane as a multi-pass membrane protein and plays a critical role in coordinating epidermal cell cytoskeletons to produce organized cuticular structures such as hairs and bristles in Drosophila. |