Recombinant DISP3 protein (His tag)

Catalog Number	543794
Synonyms	Patched domain-containing protein 2
Species	Human
Expression System	E. coli
Accession	Q9P2K9
Molecular Weight	Predictes a molecular mass of 40.68 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 41 kDa band.

Product Information

Sequence Region	828-1182
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 828-1182 aa (Q9P2K9) were fused with 6His tag.

Storage & Handling

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. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Protein dispatched homolog 3 (DISP3) fragment (residues 828-1182) from Homo sapiens, designed for structural and biochemical studies. This 355-amino acid fragment represents a stable and soluble unit of the protein, ideal for investigating its roles in neuronal proliferation, cholesterol homeostasis, and lipid droplet formation. Protein dispatched homolog 3 (encoded by the DISP3 gene) is a multi-pass membrane protein predominantly localized to the endoplasmic reticulum, nuclear membrane, and cytoplasmic vesicles, particularly within cholesterol-enriched domains. It plays a critical role in neuronal proliferation and differentiation, as demonstrated in PubMed:25281927, and contributes to cellular cholesterol accumulation and intracellular lipid droplet formation. The protein is implicated in maintaining cholesterol homeostasis in neuronal cells, with its localization to punctate vesicular structures underscoring its involvement in lipid trafficking and storage processes. This recombinant fragment enables focused analysis of these functions without the complexities of the full-length membrane protein.