Recombinant OSBL5 protein (His tag)

Catalog Number	545908
Synonyms	ORP-5; OSBP-related protein 5; Oxysterol-binding protein homolog 1
Species	Human
Expression System	E. coli
Accession	Q9H0X9
Molecular Weight	Predictes a molecular mass of 47.36 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 49 kDa band.

Product Information

Sequence Region	341-736
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 341-736 aa (Q9H0X9) 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	This product is a recombinant fragment (residues 341-736) of the human Oxysterol-binding protein-related protein 5 (ORP-5), a key lipid transporter involved in phosphatidylserine and phosphatidylinositol 4-phosphate exchange. The fragment is engineered for stability and solubility, making it ideal for structural studies and functional assays in lipid transport research. ORP-5, encoded by the OSBPL5 gene, is a lipid transporter that facilitates countertransport between the endoplasmic reticulum (ER) and plasma membrane, specifically exchanging phosphatidylserine for phosphatidylinositol 4-phosphate (PI4P). This process delivers phosphatidylserine to the plasma membrane while PI4P is degraded in the ER, contributing to lipid homeostasis. ORP-5 also binds oxysterols like 25-hydroxycholesterol and cholesterol and may assist in cholesterol egress from endosomes/lysosomes in coordination with NPC1. It localizes to the ER membrane, particularly at ER-plasma membrane contact sites, where it functions in lipid exchange. The provided fragment (residues 341-736) was selected computationally as a stable, soluble unit for experimental applications, based on structural predictions.