Recombinant OSBL3 protein (His tag)

Catalog Number	548239
Synonyms	ORP-3; OSBP-related protein 3
Species	Human
Expression System	E. coli
Accession	Q9H4L5
Molecular Weight	Predictes a molecular mass of 16.21 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	35-155
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 35-155 aa (Q9H4L5) 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	Introducing the recombinant Oxysterol-binding protein-related protein 3 (ORP-3) fragment (amino acids 35-155), a highly specific tool for investigating phosphoinositide binding and membrane-associated signaling. This 121-amino acid fragment fully encompasses the Pleckstrin Homology (PH) domain, making it ideal for studying lipid interactions, cytoskeletal regulation, and VAPA-mediated ER-plasma membrane tethering in cellular processes. ORP-3 (encoded by OSBPL3) is a multifunctional phosphoinositide-binding protein that associates with both cell and endoplasmic reticulum membranes. It plays crucial roles in intracellular compartment linkage by binding to the ER membrane protein VAPA and recruiting it to plasma membrane sites. This ORP-3-VAPA complex stimulates RRAS signaling, which attenuates integrin beta-1 activation at the cell surface. The protein is involved in regulating actin cytoskeleton dynamics, cell polarity, and cell adhesion, and demonstrates binding preference for PI(3,4)P2 and PI(3,4,5)P3 phosphoinositides, as well as 25-hydroxycholesterol and cholesterol. ORP-3 localizes to multiple cellular compartments including endoplasmic reticulum membrane, cytoplasm, cell membrane, filopodium tips, and nuclear membrane, where it functions as a peripheral membrane protein and co-localizes with OSBPL6 at contact sites between the plasma membrane and endoplasmic reticulum.