Recombinant PSD4 protein (His tag)

Catalog Number	545473
Synonyms	Exchange factor for ADP-ribosylation factor guanine nucleotide factor 6 B; Exchange factor for ARF6 B; Pleckstrin homology and SEC7 domain-containing protein 4; Telomeric of interleukin-1 cluster protein
Species	Human
Expression System	E. coli
Accession	Q8NDX1
Molecular Weight	Predictes a molecular mass of 27.91 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	775-1002
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 775-1002 aa (Q8NDX1) 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 Human PSD4 (PH domain) Fragment (aa 775-1002) – a high-purity protein tool designed for investigating the specific functions of the Pleckstrin Homology (PH) domain in guanine nucleotide exchange factor activity, membrane interactions, and intracellular trafficking mechanisms. The full-length PH and SEC7 domain-containing protein 4 (PSD4) functions as a guanine nucleotide exchange factor (GEF) for ARF6 and ARL14/ARF7. Through ARL14 activation, it regulates the movement of MHC class II-containing vesicles along the actin cytoskeleton in dendritic cells and is involved in membrane recycling processes. PSD4 interacts with several phosphatidylinositol phosphate species, including PI(3,4)P2, PI(3,5)P2, and PI(4,5)P2, and is primarily localized to the cell membrane and membrane ruffles. It accumulates in dynamic actin-rich membrane ruffles and microvilli-like structures, with membrane recruitment likely mediated by phosphatidylinositol phosphate binding.