Recombinant PP4P2 protein (His tag)

Catalog Number	545430
Synonyms	Type 2 PtdIns-4,5-P2 4-Ptase; PtdIns-4,5-P2 4-Ptase II; Transmembrane protein 55A
Species	Human
Expression System	E. coli
Accession	Q8N4L2
Molecular Weight	Predictes a molecular mass of 17.02 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	54-191
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 54-191 aa (Q8N4L2) 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 Type 2 phosphatidylinositol 4,5-bisphosphate 4-phosphatase (Type 2 PtdIns-4,5-P2 4-Ptase) fragment (amino acids 54-191) from Homo sapiens. This 138-amino acid fragment is a stable, soluble unit ideal for structural studies and enzymatic assays, enabling precise investigation of phosphatidylinositol signaling mechanisms. The full-length Type 2 PtdIns-4,5-P2 4-Ptase (EC 3.1.3.78), encoded by the PIP4P2 gene, specifically catalyzes the hydrolysis of phosphatidylinositol-4,5-bisphosphate (PtdIns-4,5-P2) to phosphatidylinositol-4-phosphate (PtdIns-4-P), without activity on related phosphoinositides such as phosphatidylinositol 3,4,5-trisphosphate or phosphatidylinositol 4-monophosphate. It localizes to late endosome, lysosome, phagosome, and cell membranes as a multi-pass transmembrane protein, where it negatively regulates phagocytosis by reducing phagosomal PtdIns-4,5-P2 accumulation during cup formation. This fragment provides a focused tool for exploring the enzyme's catalytic and regulatory roles in cellular signaling pathways.