Recombinant IP6K3 protein (His tag)

Catalog Number	545740
Synonyms	InsP6 kinase 3; Inositol hexaphosphate kinase 3
Species	Human
Expression System	E. coli
Accession	Q96PC2
Molecular Weight	Predictes a molecular mass of 29.28 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 29 kDa band.

Product Information

Sequence Region	171-410
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 171-410 aa (Q96PC2) 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 Inositol hexakisphosphate kinase 3 (InsP6 kinase 3) fragment (residues 171-410) from Homo sapiens, designed for structural and biochemical studies. This 240-amino acid fragment offers a stable and soluble unit ideal for investigating kinase activity and inositol phosphate metabolism. Inositol hexakisphosphate kinase 3 (IP6K3) is an enzyme that catalyzes the conversion of inositol hexakisphosphate (InsP6) to diphosphoinositol pentakisphosphate (InsP7/PP-InsP5), as well as the phosphorylation of 1,3,4,5,6-pentakisphosphate (InsP5) to PP-InsP4. These reactions are critical in cellular signaling pathways involving inositol phosphates, which regulate diverse processes such as cell proliferation, apoptosis, and vesicular trafficking. The protein is localized in the cytoplasm, where it performs its enzymatic functions. This recombinant fragment provides a valuable tool for elucidating the mechanistic details of IP6K3's role in inositol phosphate metabolism and its implications in cellular physiology.