Recombinant IP6K1 protein (His tag)

Catalog Number	547852
Synonyms	InsP6 kinase 1; Inositol hexaphosphate kinase 1
Species	Human
Expression System	E. coli
Accession	Q92551
Molecular Weight	Predictes a molecular mass of 22.86 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	162-344
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 162-344 aa (Q92551) 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 1 (InsP6 kinase 1) fragment (residues 162-344) from Homo sapiens, designed for structural and biochemical studies. This 183-amino acid fragment represents a stable, soluble unit of the enzyme, ideal for investigating its catalytic activity in converting inositol hexakisphosphate to diphosphoinositol pentakisphosphate. Inositol hexakisphosphate kinase 1 (IP6K1) is a key enzyme encoded by the gene IP6K1 in humans, catalyzing the conversion of inositol hexakisphosphate (InsP6) to diphosphoinositol pentakisphosphate (InsP7/PP-InsP5) and 1,3,4,5,6-pentakisphosphate (InsP5) to PP-InsP4. These reactions are critical for cellular signaling processes involving inositol phosphates, which regulate diverse functions such as cell growth, metabolism, and stress responses. The enzyme localizes to both the cytoplasm and nucleus, underscoring its broad regulatory roles in intracellular compartments. The provided fragment enables focused analysis of its functional domains without interference from full-length complexity.