Recombinant IP3KC protein (His tag)

Catalog Number	540969
Synonyms	Inositol 1,4,5-trisphosphate 3-kinase C; IP3 3-kinase C; IP3K C; InsP 3-kinase C
Species	Human
Expression System	E. coli
Accession	Q96DU7
Molecular Weight	Predictes a molecular mass of 31.84 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	419-683
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 419-683 aa (Q96DU7) 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 Inositol-trisphosphate 3-kinase C (ITPKC) Fragment (aa 419-683) is a high-purity, soluble protein designed for structural and biochemical studies. This 265-amino acid fragment retains key functional characteristics, enabling researchers to investigate calcium signaling regulation and inositol phosphate metabolism with precision. Inositol-trisphosphate 3-kinase C, encoded by the ITPKC gene, catalyzes the phosphorylation of 1D-myo-inositol 1,4,5-trisphosphate (InsP3) to 1D-myo-inositol 1,3,4,5-tetrakisphosphate, playing a critical role in calcium homeostasis. The enzyme also demonstrates activity toward inositol 2,4,5-triphosphate, converting it to inositol 2,4,5,6-tetraphosphate. Localized dynamically between the nucleus and cytoplasm, ITPKC shuttles actively across compartments, reflecting its involvement in spatially regulated signaling pathways. This recombinant fragment provides a stable, soluble unit ideal for elucidating structural mechanisms and kinetic properties underlying its phosphotransferase activity.