Recombinant KPCB protein (His tag)

Catalog Number	542029
Synonyms	PKC-B; PKC-beta
Species	Human
Expression System	E. coli
Accession	P05771
Molecular Weight	Predictes a molecular mass of 40.20 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 43 kDa band.

Product Information

Sequence Region	337-671
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 337-671 aa (P05771) 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	Introducing the recombinant human Protein Kinase C Beta Type (PKC-B) fragment (residues 337-671), a high-purity protein encompassing the complete Protein Kinase and AGC-kinase C-terminal domains. This fragment serves as an essential tool for researchers investigating kinase activity, signal transduction mechanisms, and domain-specific functions in cellular regulation. Protein Kinase C Beta Type (PKC-B), encoded by the PRKCB gene, is a calcium-activated, phospholipid- and diacylglycerol-dependent serine/threonine-protein kinase that plays critical roles in multiple cellular processes. It regulates B-cell receptor signaling through NF-kappa-B activation, mediates oxidative stress-induced apoptosis via p66Shc phosphorylation, and functions as a coactivator in androgen receptor-dependent transcription through histone H3 phosphorylation. The kinase participates in insulin signaling pathways, glucose transport regulation in adipocytes, and endothelial cell proliferation while also being involved in triglyceride homeostasis and intracellular trafficking through RAB protein phosphorylation. PKC-B exhibits dynamic subcellular localization, operating in the cytoplasm, nucleus, and as a peripheral membrane protein, reflecting its diverse functional roles across cellular compartments.