Recombinant IPKB protein (His tag)

Catalog Number	551006
Synonyms	PKI-beta
Species	Human
Expression System	E. coli
Accession	Q9C010
Molecular Weight	Predictes a molecular mass of 10.12 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 12 kDa band.

Product Information

Sequence Region	1-78
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-78 aa (Q9C010) 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 PKI-beta (cAMP-dependent protein kinase inhibitor beta) fragment (residues 1-78) is a highly potent and specific inhibitor of cAMP-dependent protein kinase (PKA) activity. This fragment has been computationally optimized for stability and solubility, making it an ideal tool for structural studies, enzymatic assays, and biochemical research. The full-length PKI-beta protein, encoded by the PKIB gene in Homo sapiens, functions as an extremely potent competitive inhibitor of cAMP-dependent protein kinase (PKA). It specifically interacts with the catalytic subunit of PKA following cAMP-induced dissociation of the regulatory chains, thereby modulating key cellular signaling pathways. This recombinant fragment represents a stable and soluble unit of the protein, enabling detailed investigation of its inhibitory mechanism and structural properties.