Recombinant PLCB1 protein (His tag)

Catalog Number	546027
Synonyms	PLC-154; Phosphoinositide phospholipase C-beta-1; Phospholipase C-I; PLC-I; Phospholipase C-beta-1; PLC-beta-1
Species	Human
Expression System	E. coli
Accession	Q9NQ66
Molecular Weight	Predictes a molecular mass of 36.34 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	526-829
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 526-829 aa (Q9NQ66) 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 PLC-beta-1 fragment (526-829), encompassing the critical PI-PLC Y-box and C2 domains, designed for targeted functional studies of phosphoinositide signaling mechanisms. The full-length 1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase beta-1 (PLC-beta-1) catalyzes hydrolysis of phosphatidylinositol 4,5-bisphosphate into diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3), initiating intracellular signaling cascades downstream of G protein-coupled receptors. It plays a regulatory role in endothelial barrier function and localizes to both the nuclear membrane and cytoplasm, where it interacts with adrenergic receptors in cardiac myocytes. This fragment retains key functional domains essential for studying domain-specific contributions to phospholipase activity and signaling regulation.