Recombinant PLCB3 protein (His tag)

Catalog Number	547176
Synonyms	Phosphoinositide phospholipase C-beta-3; Phospholipase C-beta-3; PLC-beta-3
Species	Human
Expression System	E. coli
Accession	Q01970
Molecular Weight	Predictes a molecular mass of 36.23 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	575-878
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 575-878 aa (Q01970) 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-3 Fragment (aa 575-878): A high-purity protein fragment encompassing the PI-PLC Y-box and C2 domains, designed for targeted studies of G protein-coupled receptor signaling and second messenger production. The full-length 1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase beta-3 (PLC-beta-3) is a key signaling transducer that catalyzes hydrolysis of phosphatidylinositol 4,5-bisphosphate to generate second messengers diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3). Activated by G(q)/G(11) alpha proteins downstream of G protein-coupled receptors, it plays crucial roles in cellular signaling pathways, including neutrophil functional responses through RASGRP4 activation. The protein localizes to multiple cellular compartments including cytoplasm, membrane, and nucleus, with presence in particulate fractions. This recombinant fragment specifically contains the structural domains essential for its catalytic and regulatory functions.