Recombinant KPC3 protein (His tag)

Catalog Number	531652
Synonyms	Atypical protein kinase C-3; aPKC3
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q19266
Gene ID	173914
Molecular Weight	Predictes a molecular mass of 42.05 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 47 kDa band.

Product Information

Sequence Region	248-597
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 248-597 aa (Q19266) 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 Protein kinase C-like 3 (EC 2.7.11.13) Fragment (248-597) from Caenororhabditis elegans is a high-purity, functional fragment encompassing the complete Protein kinase and AGC-kinase C-terminal domains. This product is an essential tool for researchers studying kinase activity, embryonic polarity, and cellular signaling pathways in developmental and infection response contexts. Protein kinase C-like 3 (aPKC3), encoded by the pkc-3 gene in C. elegans, is critical for embryogenesis, organism viability, and establishing embryonic polarity. It interacts with par-3 to recruit and maintain par-6 at the cell periphery and is required for epithelial cell polarity in the distal spermatheca. The protein phosphorylates num-1 serine residues and mediates antimicrobial peptide nlp-29 expression in response to fungal infection or injury. Subcellularly, it localizes to the cytoplasm and cytoskeleton, targeting apical surfaces in intestinal and pharyngeal cells and associating with the cortical actin cytoskeleton, with dynamic localization across developmental stages.