Recombinant PP2B1 protein (His tag)

Catalog Number	532669
Synonyms	Calmodulin-dependent calcineurin A1 subunit
Species	Drosophila melanogaster
Expression System	E. coli
Accession	P48456
Gene ID	43670
Molecular Weight	Predictes a molecular mass of 43.25 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	51-411
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 51-411 aa (P48456) 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	This recombinant protein product features a stable and soluble fragment (residues 51-411) of Serine/threonine-protein phosphatase 2B catalytic subunit 1 from Drosophila melanogaster. It is ideal for structural and biochemical studies, offering a functional unit of this calcium-dependent, calmodulin-stimulated phosphatase involved in intracellular signaling pathways. The full-length Serine/threonine-protein phosphatase 2B catalytic subunit 1 (encoded by the CanA1 gene) is a calcium-dependent, calmodulin-stimulated protein phosphatase essential for transducing intracellular Ca^{2+}-mediated signals. It targets substrates containing PxIxIT and/or LxVP motifs and may facilitate calmodulin activation of calcineurin. In Drosophila neuromuscular junctions, it promotes the formation of phosphatidylinositol 4,5-bisphosphate microdomains and supports synaptic vesicle reformation during activity-dependent bulk endocytosis in response to strong stimulation, potentially in a fwe-dependent manner. This protein plays a critical role in cellular signaling and synaptic function.