Recombinant PP2AA protein (His tag)

Catalog Number	547145
Synonyms	PP2A-alpha; Replication protein C; RP-C
Species	Human
Expression System	E. coli
Accession	P67775
Molecular Weight	Predictes a molecular mass of 37.25 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	1-309
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 1-309 aa (P67775) 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 Serine/threonine-protein phosphatase 2A catalytic subunit alpha isoform (PP2A-alpha), corresponding to amino acids 1-309, is a high-quality, stable fragment ideal for structural studies and biochemical assays. This product retains the catalytic domain essential for phosphatase activity, enabling researchers to investigate key regulatory mechanisms in cellular signaling pathways. PP2A-alpha, encoded by the PPP2CA gene, is a critical serine/threonine phosphatase that regulates a wide array of cellular processes, including signal transduction, cell cycle progression, transcription elongation, and immune responses. It functions as the catalytic subunit of the PP2A holoenzyme, dephosphorylating targets such as RAF1, WEE1, MYC, FOXO3, AKT1, and RNA polymerase II, thereby influencing pathways like AKT-mTOR signaling, inflammasome assembly, and transcription quality control. The protein localizes to the cytoplasm, nucleus, chromosomes (particularly centromeres), and spindle poles, with roles in mitosis and meiosis. Its involvement in STRIPAK and INTAC complexes further underscores its importance in Hippo, MAPK, and transcriptional checkpoint pathways, making it a pivotal enzyme in cellular homeostasis and disease research.