Recombinant PP4C protein (His tag)

Catalog Number	547118
Synonyms	PP4C; Pp4; Protein phosphatase X; PP-X
Species	Human
Expression System	E. coli
Accession	P60510
Molecular Weight	Predictes a molecular mass of 36.61 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	2-307
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 2-307 aa (P60510) 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 4 catalytic subunit (PP4C) fragment (residues 2-307) is a high-purity, stable protein ideal for studying phosphatase activity, DNA damage response, and cellular signaling pathways. This fragment encompasses the complete catalytic domain, optimized for solubility and functionality in biochemical and structural research applications. Serine/threonine-protein phosphatase 4 catalytic subunit (PP4C) is a multifunctional enzyme involved in critical cellular processes including DNA repair, microtubule organization at centrosomes, apoptosis, NF-kappa-B activation, and cell migration. Located in both the cytoplasm and nucleus, with specific concentration at the centrosome, PP4C participates in multiple protein complexes that regulate histone acetylation, spliceosomal snRNP maturation, and DNA damage checkpoint signaling. Notably, PP4C-containing complexes dephosphorylate γ-H2AX and RPA2 during DNA repair, facilitate JNK activation, and regulate HDAC3 activity through dephosphorylation events. The protein's broad involvement in fundamental cellular mechanisms makes it a significant target for cancer research, DNA damage response studies, and signal transduction investigations.