Recombinant PPP5 protein (His tag)

Catalog Number	542410
Synonyms	PP5; Protein phosphatase T; PP-T; PPT
Species	Human
Expression System	E. coli
Accession	P53041
Molecular Weight	Predictes a molecular mass of 58.41 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 62 kDa band.

Product Information

Sequence Region	2-499
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 2-499 aa (P53041) 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 5 (PP5) fragment (amino acids 2-499) is a high-purity, soluble protein designed for structural and functional studies. This fragment retains key catalytic activity and stability, making it ideal for investigating phosphatase signaling pathways, enzyme kinetics, and protein interactions in vitro. Serine/threonine-protein phosphatase 5 (PP5), encoded by the PPP5C gene in humans, is a multifunctional enzyme that regulates diverse cellular processes by dephosphorylating proteins involved in signaling pathways. It modulates apoptosis, DNA damage response, circadian rhythms, adipogenesis, and TGF-beta signaling through targets including kinases (CSNK1E, ASK1, RAF1), nuclear receptors (NR3C1, PPARG, ESR1/2), SMAD proteins, and TAU. PP5 responds to steroid hormones, calcium, oxidative stress, and genotoxic insults, playing roles in cell survival and differentiation. The protein localizes predominantly to the nucleus but also resides in the cytoplasm and translocates to the plasma membrane in a RAC1-dependent manner, reflecting its broad regulatory impact across cellular compartments.