Recombinant PPAC protein (His tag)

Catalog Number	537632
Synonyms	LMW-PTP; LMW-PTPase; Adipocyte acid phosphatase; Low molecular weight cytosolic acid phosphatase; Red cell acid phosphatase 1
Species	Human
Expression System	E. coli
Accession	P24666
Molecular Weight	Predictes a molecular mass of 19.57 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	2-158
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 2-158 aa (P24666) 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 Low Molecular Weight Phosphotyrosine Protein Phosphatase (LMW-PTP) Fragment (residues 2-158) is a high-quality, soluble protein designed for structural and biochemical studies. This fragment encompasses the key functional domain of LMW-PTP, providing a stable and active unit ideal for investigating phosphatase mechanisms and substrate interactions. Low Molecular Weight Phosphotyrosine Protein Phosphatase (LMW-PTP), encoded by the ACP1 gene in humans, is a cytosolic enzyme that dephosphorylates tyrosine-phosphorylated proteins, low molecular weight aryl phosphates, and acyl phosphates. It plays a critical role in cellular signaling by modulating phosphotyrosine levels, with isoform-specific variations in substrate specificity. Isoform 1 and isoform 2 exhibit distinct phosphatase activities, while isoform 3 lacks enzymatic function. The protein's cytoplasmic localization underscores its involvement in intracellular regulatory pathways, making it a valuable target for studying signal transduction and metabolic processes.