Recombinant TP4A1 protein (His tag)

Catalog Number	543331
Synonyms	PTP(CAAXI); Protein-tyrosine phosphatase 4a1; Protein-tyrosine phosphatase of regenerating liver 1; PRL-1
Species	Human
Expression System	E. coli
Accession	Q93096
Molecular Weight	Predictes a molecular mass of 21.12 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band.

Product Information

Sequence Region	1-170
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-170 aa (Q93096) 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 Protein tyrosine phosphatase type IVA 1 (PTP4A1/PRL-1) fragment (amino acids 1-170) is a high-purity protein designed for studying tyrosine phosphatase activity. This fragment fully encompasses the functional Tyrosine-protein phosphatase domain, making it an ideal tool for investigating cell cycle progression, proliferation, motility, and cancer metastasis mechanisms. Protein tyrosine phosphatase type IVA 1 (PTP4A1), also known as PRL-1, is a human enzyme that stimulates progression from G1 to S phase during mitosis and plays roles in epithelial tissue development. It enhances cell proliferation, motility, invasive activity, and promotes cancer metastasis. The protein localizes to multiple cellular compartments including the cell membrane (via lipid-anchor), early endosomes, endoplasmic reticulum, cytoplasm, cytoskeleton/spindle, and nucleus, with presence noted on mitotic spindles during cell division, reflecting its diverse functional impacts on cellular processes.