Recombinant PHP14 protein (His tag)

Catalog Number	548351
Synonyms	Phosphohistidine phosphatase 1; PHPT1; Protein histidine phosphatase; PHP; Protein janus-A homolog
Species	Human
Expression System	E. coli
Accession	Q9NRX4
Molecular Weight	Predictes a molecular mass of 15.35 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	2-125
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 2-125 aa (Q9NRX4) 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 14 kDa Phosphohistidine Phosphatase (PHPT1) Fragment (2-125) is a high-purity, stable protein fragment designed for structural and biochemical studies. This 124-amino acid construct retains key functional regions, offering researchers a soluble and active unit for investigating phosphohistidine phosphatase activity. The full-length 14 kDa phosphohistidine phosphatase (PHPT1) is a cytoplasmic enzyme that specifically catalyzes the dephosphorylation of phosphohistidine residues, playing a crucial role in regulating histidine phosphorylation signaling pathways. As evidenced by multiple studies (PubMed:19836471, PubMed:25574816), PHPT1 exhibits robust phosphohistidine phosphatase activity, positioning it as a key regulator in this understudied area of post-translational modification. Its cytoplasmic localization suggests involvement in intracellular signaling cascades, making it an important target for understanding cellular regulation beyond traditional serine, threonine, and tyrosine phosphorylation pathways.