Recombinant PHOP2 protein (His tag)

Catalog Number	548797
Species	Human
Expression System	E. coli
Accession	Q8TCD6
Molecular Weight	Predictes a molecular mass of 29.42 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 30 kDa band.

Product Information

Sequence Region	1-241
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 1-241 aa (Q8TCD6) 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 Pyridoxal phosphate phosphatase PHOSPHO2 (EC 3.1.3.74) fragment (residues 1-241) is a high-purity protein designed for structural and biochemical studies. This stable and soluble fragment retains key functional characteristics, enabling researchers to investigate PLP metabolism and phosphatase activity with reliability and precision. The full-length PHOSPHO2 protein, encoded by the PHOSPHO2 gene in Homo sapiens, functions as a phosphatase with high specificity for pyridoxal 5'-phosphate (PLP), the active form of vitamin B6. It also exhibits lower activity toward substrates such as pyrophosphate, phosphoethanolamine, phosphocholine, phospho-L-tyrosine, fructose-6-phosphate, p-nitrophenyl phosphate, and H-glycerophosphate. This enzyme plays a critical role in regulating PLP levels, which is essential for numerous enzymatic reactions including amino acid metabolism, neurotransmitter synthesis, and glycogen breakdown. The provided fragment (1-241) encompasses the complete functional domain, making it an ideal tool for elucidating the mechanistic and structural basis of PHOSPHO2's phosphatase activity.