Recombinant PPT1 protein (His tag)

Catalog Number	537800
Synonyms	PPT-1; Palmitoyl-protein hydrolase 1
Species	Human
Expression System	E. coli
Accession	P50897
Molecular Weight	Predictes a molecular mass of 32.95 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 33 kDa band.

Product Information

Sequence Region	28-306
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 28-306 aa (P50897) 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 Palmitoyl-protein thioesterase 1 (PPT-1) Fragment (aa 28-306) - A high-quality, soluble protein fragment ideal for studying lysosomal thioesterase activity and protein palmitoylation dynamics. This 279-amino acid construct represents a stable, functional unit optimized for structural and biochemical research applications. Palmitoyl-protein thioesterase 1 (PPT-1) is a crucial lysosomal enzyme with dual thioesterase activity (EC 3.1.2.2 and EC 3.1.2.22) that hydrolyzes fatty acid thioesters containing 14-18 carbon chains, including palmitoyl-CoA, S-palmitoyl-N-acetylcysteamine, and palmitoylated proteins. Unlike its homolog PPT2, PPT-1 specifically cleaves palmitoylated proteins and palmitoylcysteine, playing a vital role in protein depalmitoylation processes. The enzyme primarily localizes to lysosomes but has also been detected in secretory pathways including the Golgi apparatus and endoplasmic reticulum, suggesting additional regulatory functions beyond lysosomal degradation. PPT-1's ability to process palmitoylated substrates makes it essential for understanding protein lipidation dynamics and related cellular signaling pathways.