Recombinant PPT2 protein (His tag)

Catalog Number	546236
Synonyms	PPT-2; Palmitoyl-protein thioesterase 2; S-thioesterase G14
Species	Human
Expression System	E. coli
Accession	Q9UMR5
Molecular Weight	Predictes a molecular mass of 32.32 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 32 kDa band.

Product Information

Sequence Region	34-302
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 34-302 aa (Q9UMR5) 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 Lysosomal Thioesterase PPT2 (PPT-2) Fragment (aa 34-302) is a high-quality, soluble protein designed for structural and biochemical studies. This 269-amino acid fragment retains key functional regions, offering a stable and active unit ideal for investigating thioesterase activity and lysosomal lipid metabolism. Lysosomal thioesterase PPT2, encoded by the PPT2 gene in humans, is a crucial enzyme that catalyzes the cleavage of thioester bonds in substrates like S-palmitoyl-CoA and S-palmitoyl-N-acetylcysteamine, but it does not act on palmitoylcysteine, palmitoylated proteins, branched structures, or bulky head groups. It exhibits broad specificity by hydrolyzing both long and short-chain fatty acyl-CoA substrates. Notably, isoform 2 of PPT2 is catalytically inactive due to the absence of active site histidine-283. The enzyme is localized to the lysosome, where it contributes to lipid processing and metabolic regulation. This recombinant fragment provides a valuable tool for exploring PPT2's enzymatic mechanisms and its role in cellular physiology.