Recombinant PPGB protein (His tag)

Catalog Number	537498
Synonyms	Carboxypeptidase C; Carboxypeptidase L; Cathepsin A; Protective protein cathepsin A; PPCA; Protective protein for beta-galactosidase
Species	Human
Expression System	E. coli
Accession	P10619
Molecular Weight	Predictes a molecular mass of 53.07 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 53 kDa band.

Product Information

Sequence Region	29-480
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 29-480 aa (P10619) 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 Protective Protein (Cathepsin A) fragment (residues 29-480) is a high-purity, stable protein designed for structural and biochemical studies. This 452-amino acid fragment retains key functional domains, offering researchers a soluble and reliable tool for investigating lysosomal enzyme regulation and carboxypeptidase activity. The full-length Lysosomal Protective Protein (PPCA), encoded by the CTSA gene, is a critical multifunctional enzyme localized in lysosomes. It serves as an essential stabilizer and activator for beta-galactosidase and neuraminidase, forming protective complexes that maintain their enzymatic activity and stability. Additionally, PPCA functions as a carboxypeptidase, capable of deamidating tachykinins, highlighting its role in neuropeptide processing. Its protective association with key lysosomal enzymes underscores its significance in cellular metabolism and potential implications in lysosomal storage disorders.