Recombinant CATC protein (His tag)

Catalog Number	547068
Synonyms	Cathepsin C; Cathepsin J; Dipeptidyl peptidase I; DPP-I; DPPI; Dipeptidyl transferase; Dipeptidyl peptidase I exclusion domain chain; Dipeptidyl peptidase I heavy chain; Dipeptidyl peptidase I light chain
Species	Human
Expression System	E. coli
Accession	P53634
Molecular Weight	Predictes a molecular mass of 20.13 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 20 kDa band.

Product Information

Sequence Region	231-394
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 231-394 aa (P53634) 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 Dipeptidyl peptidase 1 (Cathepsin C) fragment (residues 231-394), a highly stable and soluble unit ideal for structural biology and enzymatic studies. This fragment retains key functional regions, enabling researchers to investigate the protease's dipeptidylpeptidase activity and its role in activating critical serine proteases. Dipeptidyl peptidase 1 (Cathepsin C) is a thiol protease with broad dipeptidylpeptidase activity, capable of cleaving substrates containing both polar and hydrophobic amino acids, though it excludes proline at the P1 position and arginine at the P2 position. It functions as both an exopeptidase and endopeptidase and plays a crucial role in activating serine proteases such as elastase, cathepsin G, and granzymes A and B, which are involved in immune responses and tissue remodeling. The full-length protein is localized to lysosomes, where it contributes to proteolytic processing and cellular homeostasis, making it a significant target for research in inflammation and immune regulation.