



# Recombinant Dog Chymase (CMA1)

Product Code	CSB-EP005599DO
Relevance	Major secreted protease of mast cells with suspected roles in vasoactive peptide generation, Extracellular domain matrix degradation, and regulation of gland secretion.
Abbreviation	Recombinant Dog CMA1 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P21842
Alias	Alpha-chymase;Mast cell protease I
Product Type	Recombinant Protein
Immunogen Species	Canis lupus familiaris (Dog) (Canis familiaris)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	IIGGTESKPHSRPYMAHLEILTLRNHLASCGGFLIRNLFVLTAAHCAGRFIMVTL GAHNIQKKEDTWQKLEVIKQFPHPKYDDLTLRHDIMLLKLKEKANLTLAVGTLP LSPQFNFVPPGRMCRVAGWGKRQVNGSGSDLQEVKLRLMDPQACRHYMA FDHNLQLCVGNPRKTKSAFKGDSGGPLLCAQVAQGIVSYGQNDKPPAVFTRI SHYRPWINKVLKQNKA
Research Area	Others
Source	E.coli
Target Names	CMA1
Expression Region	22-249aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	41.5kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

The recombinant Dog CMA1 was expressed with the amino acid range of 22-249. This CMA1 protein is theoretically predicted to have a molecular weight of 41.5 kDa. The CMA1 protein was expressed in e.coli. The CMA1 gene fragment has been modified by fusing the N-terminal 6xHis-SUMO tag, providing convenience in detecting and purifying the recombinant CMA1 protein during the following stages.

The dog Chymase (CMA1), similar to its human counterpart, is a member of the chymase family of serine proteases. It is primarily known for its involvement in the renin-angiotensin system, where it participates in the conversion of angiotensin I to vasoconstrictor angiotensin II. Chymase is predominantly expressed in mast cells and plays a crucial role in immune responses, particularly in the activation of inflammatory pathways and the release of bioactive molecules. In addition to its role in cardiovascular regulation, chymase may contribute to tissue remodeling and fibrosis. Research on dog Chymase is essential for understanding its specific functions in canine physiology, which can have implications for cardiovascular health and potential therapeutic interventions in veterinary medicine.

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

## Shelf Life

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