

Active Recombinant Human CTSS Protein, Fc-Tagged

Cat. No. CTSS-01H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Mouse myeloma cell line, NS0-derived human Cathepsin S protein Gln17-Ile331 (pro) & Ser109-Ile331 (mature), both with a C-terminal 10-His tag
Species	Human
Source	NS0
ProteinLength	17-331;109-331 a.a.
Description	The preproprotein encoded by this gene, a member of the peptidase C1 family, is a lysosomal cysteine proteinase that participates in the degradation of antigenic proteins to peptides for presentation on MHC class II molecules. The mature protein cleaves the invariant chain of MHC class II molecules in endolysosomal compartments and enables the formation of antigen-MHC class II complexes and the proper display of extracellular antigenic peptides by MHC-II. The mature protein also functions as an elastase over a broad pH range. When secreted from cells, this protein can remodel components of the extracellular matrix such as elastin, collagen, and fibronectin. This gene is implicated in the pathology of many inflammatory and autoimmune diseases and, given its elastase activity, plays a significant role in some pulmonary diseases. Alternatively spliced transcript variants encoding distinct isoforms have been found for this gene.
Bio-activity	Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH ₂ . The specific activity is >300 pmol/min/g, as measured under

 Tel: 1-631-559-9269 1-516-512-3133

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the described conditions.

Molecular Mass	39 kDa (Pro) and 28 kDa (mature)
N-terminal Sequence Analysis	Gln17 predicted & Ser109
Endotoxin	<1.0 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 6 months from date of receipt, -20 to -70 °C as supplied. 3 months, -20 to -70 °C under sterile conditions after opening.
Storage Buffer	Supplied as a 0.2 µm filtered solution in MES, NaCl and Glycerol.
Shipping	The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.

GENE INFORMATION

Gene Name	CTSS cathepsin S [Homo sapiens (human)]
Official Symbol	CTSS
Synonyms	Cathepsin S; CTSS; EC 3.4.22; EC 3.4.22.27; FLJ50259; MGC3886
Gene ID	1520
mRNA Refseq	NM_004079.5

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Protein Refseq	NP_004070.3
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UniProt ID	P25774
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