

Recombinant Mouse Cathepsin L, His-tagged

Cat. No. Ctsl-1129M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A DNA sequence encoding the mouse CTSL (P06797) (Met 1-Asn 334) was expressed, with a C-terminal polyhistidine tag
Species	Human
Source	Mouse
ProteinLength	1-334 a.a.
Description	Mouse Cathepsin L is a lysosomal cysteine protease that plays a major role in intracellular protein catabolism, and is potent in degrading collagen, laminin, elastin, as well as alpha-1 protease inhibitor and other structural proteins of basement membranes. Like many proteases, Cathepsin L is synthesized as an inactive preproenzyme, and cleavage of the 96-residue proregion is necessary to generate the fully active 221-residue mature enzyme. Studies have demonstrated that cleavage of the proregion occur autocatalytically under acidic conditions. Cathepsin L is synthesized in large amounts and secreted by many malignantly transformed cells, and induced by growth factors and tumor promoters. In addition to its role in protein degradation, evidence has accumulated for the participation of Cathepsin L in various physiological and pathological processes, such as tumor invasion and metastasis, bone resorption, spermatogenesis, and arthritis. Accordingly, Cathepsin L may prove useful as a diagnostic or prognostic marker of human tumor malignancy.
Form	Lyophilized from sterile 20 mM Tris,150 mM NaCl, pH 7.5. Normally 5 % - 8 %

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trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Purity	> 90 % as determined by SDS-PAGE
Endotoxin	μ1.0 EU per μg protein as determined by the LAL method
Stability	Samples are stable for up to twelve months from date of receipt at -70 μ
Predicted N terminal	Thr 18
Molecular Mass	The secreted recombinant mouse CTSL (pro form) consists of 328 amino acids and has a calculated molecular mass of 37.3 kDa. The recombinant protein migrates as several bands probably including the pro form, mature form, the pro peptide and the cleaved heavy chain in SDS-PAGE under reducing conditions
Storage	Store it under sterile conditions at -70μ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	Ctsl cathepsin L [<i>Mus musculus</i>]
Official Symbol	Ctsl
Synonyms	Ctsl; fs; MEP; nkt; Ctsl1; 1190035F06Rik; cathepsin L1; Cat L; nactk; furless; major excreted protein; p39 cysteine proteinase
Gene ID	13039

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mRNA Refseq	NM_009984
Protein Refseq	NP_034114
UniProt ID	P06797
Chromosome Location	13 B3; 13 30.0 cM
Pathway	Antigen processing and presentation; Endochondral Ossification; Lysosome; Phagosome; Rheumatoid arthritis; thyroid hormone biosynthesis
Function	aminopeptidase activity; cysteine-type endopeptidase activity; cysteine-type peptidase activity; histone binding; hydrolase activity; kininogen binding; peptidase activity; peptide binding; protein complex binding

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