

Active Recombinant Human CTSF Protein, His-tagged

Cat. No. CTSF-05H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant human Cathepsin F protein (20-484aa), fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.
Species	Human
Source	Insect Cells
ProteinLength	20-484aa
Description	Cathepsins are papain family cysteine proteinases that represent a major component of the lysosomal proteolytic system. Cathepsins generally contain a signal sequence, followed by a propeptide and then a catalytically active mature region. The very long (251 amino acid residues) proregion of the cathepsin F precursor contains a C-terminal domain similar to the pro-segment of cathepsin L-like enzymes, a 50-residue flexible linker peptide, and an N-terminal domain predicted to adopt a cystatin-like fold. The cathepsin F proregion is unique within the papain family cysteine proteases in that it contains this additional N-terminal segment predicted to share structural similarities with cysteine protease inhibitors of the cystatin superfamily. This cystatin-like domain contains some of the elements known to be important for inhibitory activity. CTSF encodes a predicted protein of 484 amino acids which contains a 19 residue signal peptide. Cathepsin F contains five potential N-glycosylation sites, and it may be targeted to the endosomal/lysosomal compartment via the mannose 6-phosphate receptor pathway. The cathepsin F gene is ubiquitously expressed, and it

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	maps to chromosome 11q13, close to the gene encoding cathepsin W.
Form	Liquid
Bio-activity	Specific activity is > 5 pmol/min/μg, and is defined as the amount of enzyme that hydrolyze 1pmole of Z-Phe-Arg-AMC to Z-Phe-Arg and AMC per minute at pH 5.0 at 37 centigrade.
Molecular Mass	52.5kDa (474aa)
AA Sequence	APAQPRAASFQAWGPPSPELLAPTRFALEMFNRGRAAGTRAVLGLVRGRVRRAGQ GSLYSLEATLEPPCNDPMVCRLPVSKKTLLCSFQVLDELGRHVLLRKDCGPVDTKV PGAGEPKSAFTQGSAMISLSQNHPDNRNETFSSVISLLNEDPLSQDLPVKMASIFK NFVITYNRTYESKEEARWRLSVFVNNMVRAQKIQALDRGTAQYGVTKFSDLTEEEF RTIYLNLTLLRKEPGNKMKQAKSVGDLAPPEWDWRSKGAVTKVKDQGMCGSCWAF SVTGNVEGQWFLNQGTLLSLSEQELLDCDKMDKACMGGLPSNAYSAIKNLGGLETE DDYSYQGHMQSCNFSAEKAKVYINDSVELSQNEQKLAAWLAKRGPISVAINAFGMQ FYRHGISRPLRPLCSPWLIDHAVLLVGYNRSDVPFWAIKNSWGTDWGEKGYYYLH RGSGACGVNTMASSAVVD
Endotoxin	< 1 EU/μg of protein (determined by LAL method)
Purity	> 90% by SDS-PAGE
Applications	SDS-PAGE, Enzyme Activity
Storage	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
Concentration	0.25 mg/mL (determined by Absorbance at 280nm)

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Storage Buffer Phosphate-Buffered Saline (pH 7.4) containing 40% glycerol

GENE INFORMATION

Gene Name CTSF cathepsin F [Homo sapiens (human)]

Official Symbol CTSF

Synonyms CTSF; cathepsin F; CATSF; CLN13; cathepsin F; EC 3.4.22.41

Gene ID 8722

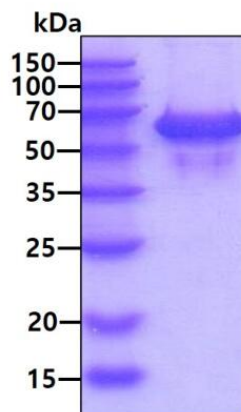
mRNA Refseq NM_003793

Protein Refseq NP_003784

MIM 603539

UniProt ID Q9UBX1

SDS-PAGE



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3μg by SDS-PAGE under reducing condition and visualized by coomassie blue stain

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