

Cathepsin S (CTSS) Active Protein | CTSS active protein

Active Cathepsin S (CTSS)

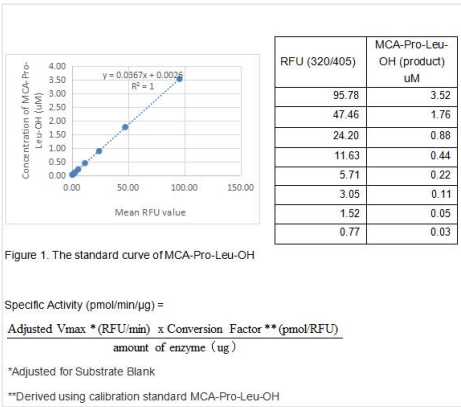
CATALOG # AAA161867	HOST E Coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Cathepsin S (CTSS); Active Cathepsin S (CTSS); Cathepsin S; CTS-S4; CTSS active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	Freeze-dried powder; PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
Sequence	Leu123~Glu 339
Applicable Applications for CTSS active protein	Activity Assay, Cell Culture
Species	Mouse
Expression System	Prokaryotic expression
Tag	N-terminal His Tag
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	5.6
Research Area	Enzyme & Kinase, Tumor immunity, Infection immunity, Immune molecule
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months

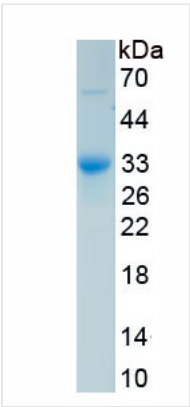


Bioactivity

Cathepsin S (CTSS) is a lysosomal cysteine protease of the papain family. It plays a major role in the processing of the MHC class II associated invariant chain. It has been implicated in the pathogenesis of several diseases such as Alzheimer's disease and degenerative disorders associated with the cells of the mononuclear phagocytic system. Mouse Cathepsin S is synthesized as a preproenzyme of 340 amino acid residues consisting a signal peptide (residues 117), a pro region (residues 181-222), and the mature enzyme (residues 123-340). Cathepsin S is less abundant in tissues than Cathepsins B, L and H. The activity of recombinant mouse CTSS is measured by its ability to cleave a fluorogenic peptide substrate Mca-Arg-Pro-Lys-Pro-Val-Glu-Nval-Trp-Arg-Lys(Dnp)-NH2 in the assay buffer 50 mM NaOAc, 5 mM DTT, 250 mM NaCl, pH 4.5. The rmCTSS is diluted to 50 ug/ml in assay buffer, then incubated at room temperature for 2h. The incubated rmCTSS is diluted to 5 ug/mL in assay buffer. Loading into a black well plate 50 uL of 5 ug/mL rmCTSS and start the reaction by adding 50 uL of 20 uM substrate, with a substrate blank containing 50 uL assay buffer, 50 uL substrate, and no rmCTSS. Then read at excitation and emission wavelengths of 320 nm and 405 nm, respectively, in kinetic mode for 5 minutes. The specific activity of recombinant mouse CTSS is > 10 pmol/min/ug.

SDS-PAGE

Figure. SDS-PAGE



ADDITIONAL INFORMATION

Product Categories/Family for CTSS active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	510025483
NCBI GeneID	13040
NCBI Accession #	NP_067256.4
NCBI GenBank Nucleotide #	NM_021281.3
UniProt Accession #	O70370; O54973; E9QK18
Molecular Weight	38,475 Da
NCBI Official Full Name	cathepsin S isoform 2 preproprotein
NCBI Official Synonym Full Names	cathepsin S
NCBI Official Symbol	Ctss
NCBI Official Synonym Symbols	Cats
NCBI Protein Information	cathepsin S
UniProt Protein Name	Cathepsin S
UniProt Gene Name	Ctss

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/e-coli-active-protein/cathepsin-s-ctss/161867>