

Recombinant Human CTSV Protein (Gly64-Val334), His tagged

Cat. No. CTSV-1892H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human CTSV (Gly64-Val334) fused with His tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	Gly64-Val334
Description	Cathepsin V (CTSV), also known as Cathepsin L2, CTSL2, and CATL2, is a member of the peptidase C1 family. It is predominantly expressed in the thymus and testis. Cathepsin V is also expressed in corneal epithelium, and to a lesser extent in conjunctival epithelium and skin. It is a lysosomal cysteine proteinase that may play an important role in corneal physiology. It has about 75% protein sequence identity to murine cathepsin L. The fold of this enzyme is similar to the fold adopted by other members of the papain superfamily of cysteine proteases. Cathepsin V has been recently described as highly homologous to Cathepsin L and exclusively expressed in human thymus and testis. Cathepsin V is the dominant cysteine protease in cortical human thymic epithelial cells, while Cathepsin L and Cathepsin S seem to be restricted to dendritic and macrophage-like cells. Active Cathepsin V in thymic lysosomal preparations was demonstrated by active-site labeling. Recombinant Cathepsin V was capable of converting Ii into CLIP efficiently, suggesting that it is the protease that controls the generation of alphabeta-CLIP complexes in the human thymus. Cathepsin V is the third elastolytic cysteine protease which exhibits the most

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potent elastase activity yet described among human proteases and that it is present in atherosclerotic plaque specimens. Cathepsin L2 may play a specialized role in the thymus and testis. Expression analysis of cathepsin L2 in human tumors revealed a widespread expression in colorectal and breast carcinomas but not in normal colon or mammary gland or in peritumoral tissues. Cathepsin L2 was also expressed by colorectal and breast cancer cell lines as well as by some tumors of diverse origin, including ovarian and renal carcinomas.

Form	Lyophilized powder/frozen liquid
Molecular Mass	31.54 kDa
Purity	>90% as determined by SDS-PAGE
Notes	For research use only.
Storage	Use a manual defrost freezer and avoid repeated freeze thaw cycles. Store at 2 to 8 centigrade for one week. Store at -20 to -80 centigrade for twelve months from the date of receipt.
Storage Buffer	Supplied as solution form in PBS, pH 7.5 or lyophilized from PBS, pH 7.5.
Reconstitution	Reconstitute in sterile water for a stock solution.
Shipping	They are shipped out with dry ice/blue ice unless customers require otherwise.

GENE INFORMATION

Gene Name	CTSV cathepsin V [Homo sapiens (human)]
Official Symbol	CTSV

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Synonyms	CTSV; cathepsin V; CTSU; CATL2; CTSL2; cathepsin L2; cathepsin L2, preproprotein; cathepsin U; EC 3.4.22.43
Gene ID	1515
mRNA Refseq	NM_001333
Protein Refseq	NP_001324
MIM	603308
UniProt ID	O60911

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