

Cathepsin B Recombinant Protein | CTSB recombinant protein

Recombinant Human Cathepsin B Protein

CATALOG # AAA283410	HOST HEK293 Cells
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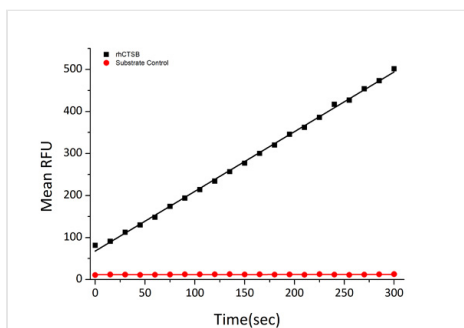
PRODUCT SYNONYMS

Cathepsin B; Recombinant Human Cathepsin B Protein; 3.4.22.1; APP secretase; APPS; Cathepsin B1; CTSB; CTSB recombinant protein

PRODUCT SPECIFICATIONS

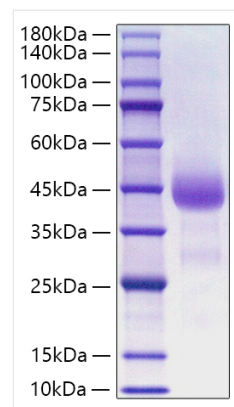
Host	HEK293 Cells
Purity/Purification	>97% by SDS-PAGE.
Form/Format	Lyophilized from a 0.22 um filtered solution of PBS, pH7.4.
Sequence	RSRPSFHPLS DELVNYVNKR NTTWQAGHNF YNVDMSYLKR LCGTFLGGPK PPQRMFTED LKLPASFDAR EQWPQCPTIK EIRDQGSCGS CWAFGAVEAI SDRICHTNA HVSVEVSAED LLTCCGSMCG DGCNGGYPAE AWNFWTRKGL VSGGLYESHV GCRPYSIPPC EHHVNGSRPP CTGEGDTPKC SKICEPGYSP TYQDKHYGY NSYSVSNSEK DIMAEIYKNG PVEGAFSVYS DFLLYKSGVY QHVTGEMMG GHAIRILGWGV ENGTPYWLVA NSWNTDWGDN GFFKILRGQD HCGIESEVVA GIPRTDQYWE KI
Species	Human
Tag	C-His
Endotoxin	<0.1EU/ug
Bio-Activity	Measured by its ability to cleave the fluorogenic peptide substrate Z-LR-AMC (R&D Systems,#ES008). The specific activity is >3468 pmoles/min/ug.
Preparation and Storage	Store at -20 degree C. Store the lyophilized protein at -20 degree C to -80 degree C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20 degree C for 3 months, at 2-8 degree C for up to 1 week.

IMAGES



Application Data

Recombinant Human Cathepsin B cleave the fluorogenic peptide substrate Z-LR-AMC . The specific activity is >3468 pmoles/min/ug.



SDS-PAGE

Recombinant Human Cathepsin B Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 40-50 kDa.

ADDITIONAL INFORMATION

Related Product Information for CTSB recombinant protein	Cathepsin B is a papain-family cysteine protease that is normally located in lysosomes, where it is involved in the turnover of proteins and plays various roles in maintaining the normal metabolism of cells. This protease has been implicated in pathological conditions, e.g., tumor progression and arthritis. In disease conditions, increases in the expression of cathepsin B occur at both the gene and protein levels. Cathepsin B is synthesized as a preproenzyme and the primary pathways for its normal trafficking to the lysosome utilize mannose 6-phosphate receptors (MPRs). Mature cathepsin B has the ability to degrade several extracellular matrix components at both neutral and acidic pH and has been implicated in the progression of several human and rodent tumors progression and arthritis. Cathepsin B expression is increased in many human cancers at the mRNA, protein and activity levels. It is also frequently overexpressed in premalignant lesions, an observation that associates this protease with local invasive stages of cancer. Increased expression of cathepsin B in primary cancers, and especially in preneoplastic lesions, suggests that this enzyme might have pro-apoptotic features. Active cathepsin B is also secreted from tumours, a mechanism likely to be facilitated by lysosomal exocytosis or extracellular processing by surface activators. Cathepsin B is localized to caveolae on the tumour surface, where binding to the annexin II heterotetramer occurs. Thus CTSB is suggested as a tumor marker. Additionally, Cathepsin B can degrade extracellular matrix proteins, such as collagen IV and laminin, and can activate the precursor form of urokinase plasminogen activator (uPA), perhaps thereby initiating an extracellular proteolytic cascade.
Product Categories/Family for CTSB recombinant protein	Other Recombinant Protein; Proteins

NCBI AND UNIPROT INFORMATION

NCBI GeneID	1508
UniProt Accession #	P07858
UniProt Protein Name	Cathepsin B
UniProt Gene Name	CTSB
UniProt Synonym Gene Names	CPSB; APPS
UniProt Entry Name	CATB_HUMAN

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.