

Product datasheet

Recombinant Human Cathepsin B protein (Active) ab283434

[1 References](#) [4 Images](#)

Description

Product name	Recombinant Human Cathepsin B protein (Active)	
Biological activity	Fully biologically active determined by its ability to cleave the fluorogenic peptide substrate Z-Leu-Arg-AMC (Z-LR-AMC). The specific activity is comparable to the same protein (Human Cathepsin B/CTSB) from other vendors.	
Purity	>= 95 % SDS-PAGE. >95% purity by HPLC	
Endotoxin level	<=0.005 Eu/µg	
Expression system	HEK 293 cells	
Accession	<u>P07858</u>	
Protein length	Full length protein	
Animal free	No	
Carrier free	Yes	
Nature	Recombinant	
Species	Human	
Sequence	RSRPSFHPLSDELVNYVNRNTTWQAGHNFYNDMSYLK RLCGTFLLGGPK PPQRVMFTEDLKLPAFDAREQWPQCPTIKEIRDQGSCG SCWAFGAVEAI SDRICHTNAHVSVEVSAEDLLTCCGSMCGDGCNGGYPA EAWNFWTRKGL VSGGLYESHVGCRPYSIPPCEHHVNGSRPPCTGEGDTPK CSKICEPGYSP TYKQDKHYGNSYSVSNSEKDIMAIEYKNGPVEGAFSVYS DFLLYKSGVY QHVTGEMMGGHAILGWGVENGTPYWLVANSWNTDWG DNGFFKILRGQD HCGIESEVVAGIPRTDQYWEKI	
Predicted molecular weight	36 kDa	
Actual molecular weight	36 kDa	
Molecular weight information	Mass determination by ESI-TOF. Predicted MW is 35961.26 Da. (+/- 10 Da by ESI-TOF). Observed mass is 35951.71 Da.	

Amino acids 18 to 339
Additional sequence information N-terminal glycine

Specifications

Our **Abpromise guarantee** covers the use of **ab283434** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE
Mass Spectrometry
HPLC
Functional Studies

Form Lyophilized

Additional notes This enzyme is in proform. Although you may see low activity used as is, the enzyme will be more active with an activation step. We do not have a formalized protocol and suggest consulting scientific publications. Cathepsin B is a lysosomal enzyme that has pH optima in acidic range. Scientific literature reports the pH optima to be around 5. As you move from the pH optima in either direction (basic, acidic) activity level drops. You will have maximal enzymatic activity with a pre-activation step in acidic buffer and assay carried out in acidic buffer at the pH optima.

Preparation and Storage

Stability and Storage Shipped at Room Temperature. Store at Room Temperature.
pH: 7.4
Constituents: 0.727% Dibasic monohydrogen potassium phosphate, 0.248% Monobasic dihydrogen potassium phosphate, 10.26% Trehalose
This product is an active protein and may elicit a biological response in vivo, handle with caution.

Reconstitution Reconstitute with Phosphate Buffered Saline. Store lyophilized form at room temperature. Reconstitute, aliquot and store at -80°C for 12 months or +4°C for 1 week. Avoid repeated freeze-thaw. Lyophilized contents may appear as either a translucent film or a white powder. This variance does not affect the quality of the product.

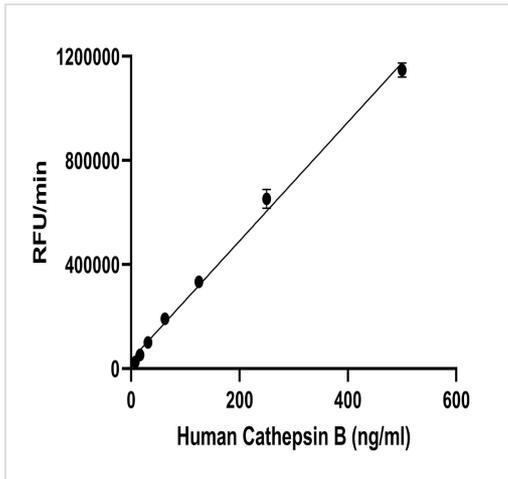
General Info

Function Thiol protease which is believed to participate in intracellular degradation and turnover of proteins. Has also been implicated in tumor invasion and metastasis.

Sequence similarities Belongs to the peptidase C1 family.

Cellular localization Lysosome. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

Images



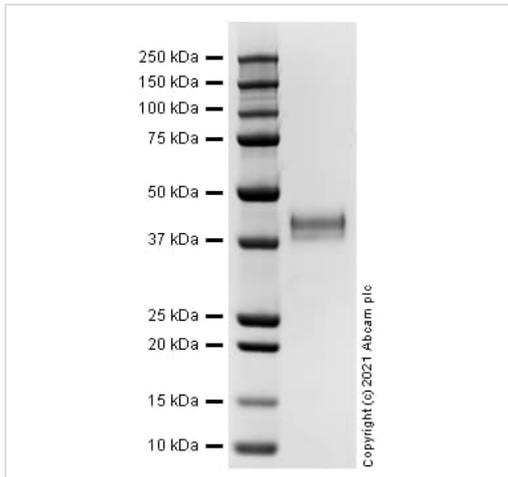
Functional Studies - Recombinant Human Cathepsin B protein (Active) (ab283434)

Fully biologically active determined by its ability to cleave the fluorogenic peptide substrate Z-Leu-Arg-AMC (Z-LR-AMC).

The specific activity is comparable to the same protein (Human Cathepsin B/CTSB) from other vendors.

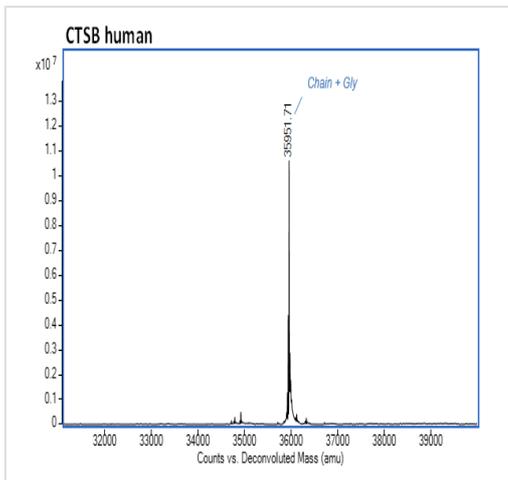
Cell based assay testing is performed on the first lot of the protein only and is provided as a reference for protein activity; subsequent lots of protein must pass all biophysical quality control parameters that meet the same parameters as the first lot.

Lot GR3398597-2



SDS-PAGE - Recombinant Human Cathepsin B protein (ab283434)

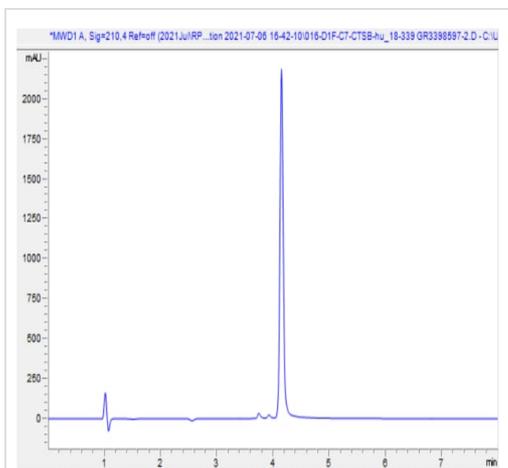
SDS-PAGE analysis of ab283434.



Mass Spectrometry - Recombinant Human
Cathepsin B protein (ab283434)

Mass determination of ab283434 by ESI-TOF.

Predicted MW is 35961.26 Da. (+/- 10 Da by ESI-TOF). Observed mass is 35951.71 Da.



HPLC - Recombinant Human Cathepsin B protein
(ab283434)

HPLC analysis of ab283434.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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