

Product datasheet

Native human Cathepsin D protein ab91123

[1 References](#) [2 Images](#)

Description

Product name	Native human Cathepsin D protein	
Biological activity	Activity: >=300 units per mg protein. One unit is defined as the amount of enzyme that digests hemoglobin-releasing peptides which are soluble in 10% TCA. The reaction is measured by an increase of an A280 of 1.0 per 60 minutes at 37°C . Substrate: acid denatured hemoglobin, pH 1.8 (0.2% in reaction mixture). Buffer: 100 mM formate, pH 3.3.	
Purity	> 95 % SDS-PAGE.	
Expression system	Native	
Accession	<u>P07339</u>	
Protein length	Full length protein	
Animal free	No	
Nature	Native	
Species	Human	
Sequence	<p>MQPSSLLPLALCLLAAPASALVRIPLHKFTSIRRTMSEVGG SVEDLIAG PVSKYSQAVPAVTEGPIPEVLKNYMDAQYGEIGIGTPPQC FTVVFDTGS SNLWVPSIHCKLLDIACWIIHKYNSDKSSTYVKNGTSFDIH YGSGSLSGY LSQDTVSVPCQSASSASALGGVKVERQVFGKATKQPGIT FIAAKFDGILG MAYPRISVNNVLPVFDNLMQQKLVDQNIFFSYLSRDPDAQ PGGELMLGGT DSKYYKGSLSYLVNTRKAYWQVHLDQVEVASGLTLCKEG CEAVDTGTSL MVGPVDEVRELQKAIGAVPLIQGEYMIPCEKVSTLPAILKL GGKGYKLS PEDYTLKVSQAGKTLCLSGFMGMDIPPPSGPLWILGDVFI GRYTTFVDRD NNRVGFEEAARL</p>	
Predicted molecular weight	42 kDa	
Additional sequence information	Source: Human Plasma	

Specifications

Our **Abpromise guarantee** covers the use of **ab91123** in the following tested applications.

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

Applications	Functional Studies SDS-PAGE Western blot
Form	Lyophilized
Additional notes	Lyophilized from 2 mM Na phosphate, pH 6.5. Protein Determination: Extinction Coefficient (E) 0.1% at 280nm, 1 cm pathway = 1.0 Prepared from tissue shown to be non reactive for HBsAg, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA approved tests.

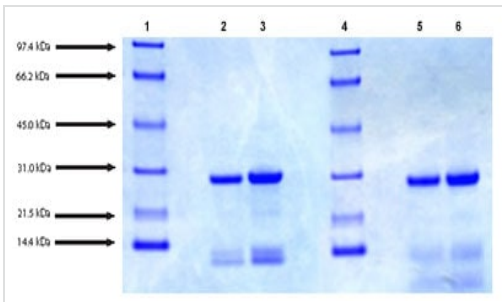
Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at 4°C prior to reconstitution. Store at -80°C. pH: 6.50 Constituent: 0.0328% Sodium phosphate This product is an active protein and may elicit a biological response in vivo, handle with caution.
Reconstitution	Resuspend a 25ug vial with 71.4uL of deionized H2O to give a protein concentration of 0.350mg/mL, which is the original protein concentration of the lot when it was finished. This should then be aliquotted into suitable amounts in a screw top vial to prevent sublimation and stored at <70 deg C. Aliquots should be diluted to appropriate concentration once thawed. We recommend 2mM NaP pH 6.5 to make dilutions.

General Info

Function	Acid protease active in intracellular protein breakdown. Involved in the pathogenesis of several diseases such as breast cancer and possibly Alzheimer disease.
Tissue specificity	Expressed in the aorta extracellular space (at protein level).
Involvement in disease	Ceroid lipofuscinosis, neuronal, 10
Sequence similarities	Belongs to the peptidase A1 family. Contains 1 peptidase A1 domain.
Post-translational modifications	N- and O-glycosylated.
Cellular localization	Lysosome. Melanosome. Secreted, extracellular space. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. In aortic samples, detected as an extracellular protein loosely bound to the matrix (PubMed:20551380).

Images



SDS-PAGE - Native human Cathepsin D protein
(ab91123)

SDS-PAGE: 4-12% Bis-Tris NuPAGE gel

Lane 1. Molecular weight markers

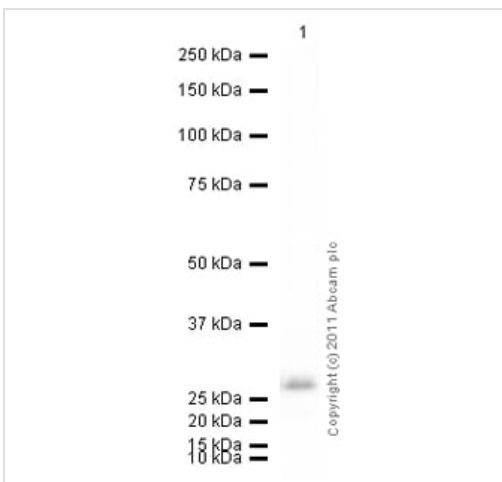
Lane 2. 4 µg Cathepsin D (non-reduced/no heat)

Lane 3. 7 µg Cathepsin D (non-reduced/no heat)

Lane 4. Molecular weight markers

Lane 5. 4 µg Cathepsin D (reduced/heated)

Lane 6. 7 µg Cathepsin D (reduced/heated)



Western blot - Native human Cathepsin D protein
(ab91123)

Anti-Cathepsin D antibody [4G2] ([ab40697](#)) at 1/500 dilution +

Native human Cathepsin D protein (ab91123) at 0.1 µg

Secondary

Goat Anti-Mouse IgG H&L (HRP) preadsorbed ([ab97040](#)) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Exposure time: 30 seconds

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

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