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Datasheet for ABIN2180942 Cathepsin B Protein (CTSB) (AA 18-339) (His tag)

1 Image

2 Publications



Overview

Quantity:	50 µg
Target:	Cathepsin B (CTSB)
Protein Characteristics:	AA 18-339
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Cathepsin B protein is labelled with His tag.

Product Details

Sequence:	AA 18-339
Characteristics:	rh CTSB is fused with a polyhistidine tag at the C-terminus, and has a calculated MW of 36.7
	kDa (pro-form) and 29 kDa (mature-form). The predicted N-terminus is Arg18 (pro-form) or
	Phe74 (mature-form). Due to glycosylation, The reducing (R) protein migrates as 43 kDa (pro-
	form) band in SDS-PAGE and there may be a 34 kDa (mature-form) band.
Purity:	>95 % as determined by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1.0 EU per μ g by the LAL method.
Target Details	
Target:	Cathepsin B (CTSB)
Alternative Name:	Cathepsin B (CTSB Products)

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Target Details

Background:	Cathepsin B (CTSB) is also known as APP secretase (APPS) and CPSB, is an enzymatic protein
	belonging to the peptidase C1 family. Cathepsin B / CTSB is synthesized as a preproenzyme.
	Following removal of the signal peptide, the inactive proenzyme undergoes further
	modifications including removal of the pro region to result in the active enzyme. The catalytic
	activity of Cathepsin B / APPS contains: Hydrolysis of proteins with broad specificity for peptide
	bonds, Preferentially cleaves -Arg-Arg- -Xaa bonds in small molecule substrates (thus differing
	from cathepsin L), In addition to being an endopeptidase, shows peptidyl-dipeptidase activity,
	liberating C-terminal dipeptides. As a thiol protease, cathepsin B / CPSB is believed to
	participate in intracellular degradation and turnover of proteins and has also been implicated in
	tumor invasion and metastasis. Overexpression of cathepsin B has been associated with
	esophageal adenocarcinoma and other tumors.
Molecular Weight:	36.7 kDa & 29.5 kDa
NCBI Accession:	NP_001899
Pathways:	Activation of Innate immune Response, Toll-Like Receptors Cascades
Application Details	
Restrictions:	For Research Use only
Handling	
Format:	Lyophilized
Buffer:	50 mM Tris, 150 mM NaCl, pH 8.0
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	No activity loss was observed after storage at: In lyophilized state for 1 year (4 °C-8 °C), After reconstitution under sterile conditions for 1 month (4 °C-8 °C) or 3 months (-20 °C to -70 °C).
Dublications	

Publications

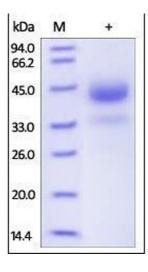
Product cited in:	Igarashi, Miura, Williams, Jaksch, Kadowaki, Yamauchi, Guarente: "NAD+ supplementation
	rejuvenates aged gut adult stem cells." in: Aging cell , Vol. 18, Issue 3, pp. e12935, (2020) (
	PubMed).

Park, Choi, Kim, Cheong, Jeong: "AhR activation by 6-formylindolo[3,2-b]carbazole and 2,3,7,8-

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Das, Png, Oancea, Hasnain, Lourie, Proctor, Eri, Sheng, Crane, Florin, McGuckin: "Glucocorticoids alleviate intestinal ER stress by enhancing protein folding and degradation of misfolded proteins." in: **The Journal of experimental medicine**, Vol. 210, Issue 6, pp. 1201-16, (2013) (PubMed).

Images



SDS-PAGE

Image 1. Human Cathepsin B, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

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