antibodies

Datasheet for ABIN7321072 Cathepsin B Protein (CTSB) (His tag)





Overview

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

Product Details

Purpose:	Recombinant Rat Cathepsin B/CTSB Protein (His Tag)
Sequence:	Met1-Phe339
Characteristics:	A DNA sequence encoding the rat Ctsb (NP_072119.2) (Met1-Phe339) was expressed with a polyhistidine tag at the C-terminus.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin Level:	< 1.0 EU per µg protein as determined by the LAL method.

Target Details

Target:	Cathepsin B (CTSB)
Alternative Name:	Cathepsin B/CTSB (CTSB Products)
Background:	Background: 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,

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Buffer:

	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.
	Synonym: Cathepsin B,CTSB
Molecular Weight:	37.1 kDa
NCBI Accession:	NP_072119
Pathways:	Activation of Innate immune Response, Toll-Like Receptors Cascades
Application Details	
Restrictions:	For Research Use only
Handling	
Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
5 (1)	

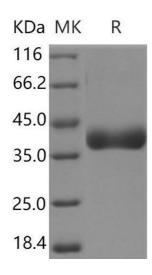
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C.
	Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted

Lyophilized from sterile 25 mM Tris, 150 mM NaCl, pH 7.5

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samples are stable at < -20°C for 3 months.

Images



Western Blotting

Image 1.

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