CTSB Polyclonal Antibody

catalog number: AN006970L

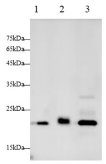
Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

Description

Reactivity	Human
Immunogen	Recombinant Mouse CTSB protein expressed by Mammalian
Host	Rabbit
Isotype	IgG
Purification	Antigen Affinity Purification
Buffer	PBS with 0.05% proclin 300, 1% protective protein and 50% glycerol,pH7.4

Applications	Recommended Dilution
WB	1:1000-1:2000

Data



Western blot with Anti CTSB Polyclonal antibody at dilution of 1:1000. Lane 1: A549 cell lysate, Lane 2: Hep G2 cell lysate, Lane 3: U266 cell lysate.

Observed-MW:23 kDa

Calculated-MW:37 kDa

Preparation & Storage

Storage	Store at -20°C Valid for 12 months. Avoid freeze / thaw cycles.
Shipping	The product is shipped with ice pack, upon receipt, store it immediately at the temperature recommended.

Background

Toll-free: 1-888-852-8623
Web:www.elabscience.com
Tel: 1-832-243-6086
Email:techsupport@elabscience.com
Fax: 1-832-243-6017

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.

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