Cathepsin B (G60) Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

**Applications:** WB

**Reactivity:** H

**Sensitivity:** Endogenous

**MW (kDa):** 39-42

**Source:** Rabbit

**UniProt ID:** #P07858

**Entrez-Gene Id:** 1508

**Product Usage Information**

- **Application:** Western Blotting
  - **Dilution:** 1:1000

**Storage**

- Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

**Specificity / Sensitivity**

Cathepsin B (G60) Antibody detects endogenous levels of total human cathepsin B protein.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly60 of human cathepsin B. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

Cathepsin B (CSTB), part of the papain family of proteases, is a widely expressed lysosomal cysteine endopeptidase (1,2). Cathepsin B is produced from a larger precursor form, pro-cathepsin B, which runs at approximately 44 kDa on SDS-PAGE, and is proteolytically processed and glycosylated to form a mature two-chain protein containing a heavy chain (running at 27 and 24 kDa) and a light chain (5 kDa). High levels of cathepsin B are found in macrophages and osteoclasts, as well as various types of cancer cells, including lung, colon, prostate, breast, and stomach. In addition, expression of cathepsin B has been associated with multiple sclerosis (3), rheumatoid arthritis (4), and pancreatitis (5). While generally localized to lysosomes, in cancer alterations can lead to its secretion (6). Its role in tumor progression is thought to involve promotion of basement membrane degradation, invasion and metastasis (7,8). Expression can correlate with poor prognosis for a variety of forms of cancer (9-13).

This product detects a SARS-CoV-2-related target for research into the mechanisms of the Novel Coronavirus, which has caused the COVID-19 pandemic.

**Background References**


**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key**

- **WB:** Western Blotting

**Cross-Reactivity Key**

- **H:** human
- **M:** mouse
- **R:** rat
- **Hm:** hamster
- **Mk:** monkey
- **Vir:** virus
- **Mi:** mink
- **Dm:** D. melanogaster
- **X:** Xenopus
- **Z:** zebrafish
- **B:** bovine
- **Dg:** dog
- **Pg:** pig
- **Sc:** S. cerevisiae
- **Ce:** C. elegans
- **Hr:** horse
- **GP:** Guinea Pig
- **Rab:** rabbit
- **All:** all species expected

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