Applications | Species Cross-Reactivity* | Molecular Wt. | Source | Cathepsin B
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Western blotting | H | 39-42 kDa | Rabbit** | Cathepsin B (G60) Antibody

**Background:** Cathepsin B (CSTB), part of the papain family of proteases, is a widely expressed lysosomal cysteine endopeptidase (1,2). Like other family members, cathepsin B is produced from a larger precursor form, pro-cathepsin B, which in its glycosylated form runs at about 40-kDa on SDS-PAGE, and is then activated by cleavage of a 62-amino acid pro-peptide. High levels of cathepsin B are found in macrophages and osteoclasts, as well as various types of cancer - 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 expressed in lysosomes, alterations such as in cancer 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).

**Specificity/Sensitivity:** Cathepsin B (G60) Antibody detects endogenous levels of 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.

**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.

**Recommended Antibody Dilutions:** Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

**Background References:**