

Cathepsin D Polyclonal Antibody

CATALOG #:	3191R-100
AMOUNT:	100 µg
LOT #:	_____
HOST:	Rabbit
IMMUNOGEN:	Synthetic peptide surrounding amino acid 140 of mouse Cathepsin D (ID# BV-F46G).
SPECIES REACTIVITY:	Human, Mouse, Rat

FORMULATION:

100 µg (0.5 mg/ml) affinity purified rabbit anti-cathepsin D polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 0.01% thimerosal.

STORAGE CONDITIONS:

Store at -20°C. For long-term storage, aliquot and freeze at -70°C. Avoid repeated freeze/thaw cycles.

BACKGROUND:

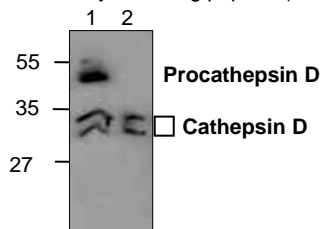
Cathepsin D is a normal lysosomal protease that is expressed in all cells. It is an aspartyl protease with a pH optimum in the range of 3-5, and contains two N-linked oligosaccharides. Cathepsin D is synthesized as an inactive 52 kDa pro-enzyme. Activation involves the proteolytic removal of the 43 amino acid profragment and an internal cleavage to generate the two-chain form made up of 34 and 14 kDa subunits. Cathepsin D contains the mannose-6-phosphate lysosomal localization signal that targets the enzyme to the lysosomal compartment where it functions in the normal degradation of proteins. In certain tumor cells, Cathepsin D is abnormally processed and is secreted in its 52 kDa precursor form. Numerous clinical studies as well as *in vitro* evidence suggest that cathepsin D plays an important role in malignant transformation and may be a useful prognostic indicator for breast cancer.

SPECIFICITY:

The purified antibody detects both the 52 kDa proform and the 34 kDa cleaved fragment of Cathepsin D.

APPLICATION AND USAGE:

The antibody can be used for Western blot analysis (0.5-4 µg/ml). Based on researcher's feedback, it can also be used in immunoprecipitation. However, the optimal conditions should be determined individually. Blocking peptide (Cat.# 3191RBP-50) is available separately.



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Western blot analysis of Cathepsin D in 3T3 cell lysate (Lane 1) and in rat kidney tissue lysate (Lane 2).

FOR RESEARCH USE ONLY! Not to be used on humans.

RELATED PRODUCTS:

Apoptosis Detection Kits & Reagents

- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents
- Apoptosis Inducers and Set
- Apoptosis siRNA Vectors

Cell Fractionation System

- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System

Cell Proliferation & Senescence

- Quick Cell Proliferation Assay Kit
- Senescence Detection Kit
- High Throughput Apoptosis/Cell Viability Assay Kits
- LDH-Cytotoxicity Assay Kit
- Bioluminescence Cytotoxicity Assay Kit
- Live/Dead Cell Staining Kit

Cell Damage & Repair

- HDAC Fluorometric & Colorimetric Assays & Drug Discovery Kits
- HAT Colorimetric Assay Kit & Reagents
- DNA Damage Quantification Kit
- Glutathione & Nitric Oxide Fluorometric & Colorimetric Assay Kits

Signal Transduction

- cAMP & cGMP Assay Kits
- Akt & JNK Activity Assay Kits
- Beta-Secretase Activity Assay Kit

Adipocyte & Lipid Transfer

- Recombinant Adiponectin, Survivin, & Leptin
- CETP Activity Assay & Drug Discovery Kits
- PLTP Activity Assay & Drug Discovery Kits
- Total Cholesterol Quantification Kit

Molecular Biology & Reporter Assays

- siRNA Vectors
- Cloning Insert Quick Screening Kit
- Mitochondrial & Genomic DNA Isolation Kits
- 5 Minutes DNA Ligation Kit
- 20 Minutes Gel Staining/Destaining Kit
- β-Galactosidase Staining Kit & Luciferase Reporter Assay Kit

Growth Factors and Cytokines

Monoclonal and Polyclonal Antibodies