

cathepsin D (R-20): sc-6487

BACKGROUND

The cathepsin family of proteolytic enzymes contains several diverse classes of proteases. The cysteine protease class comprises cathepsins B, L, H, K, S and O. The aspartyl protease class is composed of cathepsins D and E. Cathepsin G is in the serine protease class. Most cathepsins are lysosomal and each is involved in cellular metabolism, participating in various events such as peptide biosynthesis and protein degradation. Cathepsins may also cleave some protein precursors, thereby releasing regulatory peptides. The promoter region of the cathepsin D gene contains five Sp1 binding sites and four AP-2 binding sites.

CHROMOSOMAL LOCATION

Genetic locus: CTSD (human) mapping to 11p15.5; CtSD (mouse) mapping to 7 F5.

SOURCE

cathepsin D (R-20) is available as either goat (sc-6487) or rabbit (sc-6487-R) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of cathepsin D of rat origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6487 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

cathepsin D (R-20) is recommended for detection of cathepsin D of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for cathepsin D siRNA (h): sc-29239, cathepsin D siRNA (m): sc-29934, cathepsin D shRNA Plasmid (h): sc-29239-SH, cathepsin D shRNA Plasmid (m): sc-29934-SH, cathepsin D shRNA (h) Lentiviral Particles: sc-29239-V and cathepsin D shRNA (m) Lentiviral Particles: sc-29934-V.

Molecular Weight of immature cathepsin D: 52-60 kDa.

Molecular Weight of intermediate cathepsin D: 46-48 kDa.

Molecular Weight of mature cathepsin D: 33 kDa.

Positive Controls: rat kidney extract: sc-2394, MCF7 whole cell lysate: sc-2206 or ZR-75-1 cell lysate: sc-2241.

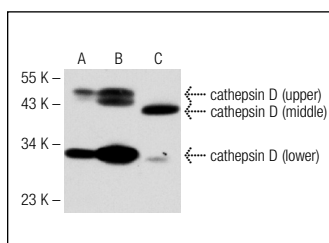
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

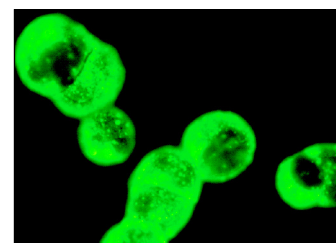
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



cathepsin D (R-20): sc-6487. Western blot analysis of cathepsin D precursors (immature, intermediate) and processed form (mature) expression in MCF7 (A) and ZR-75-1 (B) whole cell lysates and rat kidney extract (C).



cathepsin D (R-20): sc-6487. Immunofluorescence staining of methanol-fixed ZR-75-1 cells showing punctated cytoplasmic/lysosomal staining.

SELECT PRODUCT CITATIONS

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