SANTA CRUZ BIOTECHNOLOGY, INC.

cathepsin D (N-19): sc-6488

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of cathepsin D of human 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-6488 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

cathepsin D (N-19) 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)), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with Pepsinogen C and Renin.

cathepsin D (N-19) is also recommended for detection of cathepsin D in additional species, including canine, bovine, porcine and avian.

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.

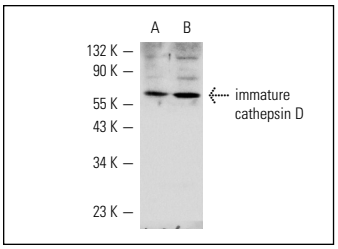
Molecular Weight of mature cathepsin D: 33 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, MCF7 whole cell lysate: sc-2206 or ZR-75-1 cell lysate: sc-2241.

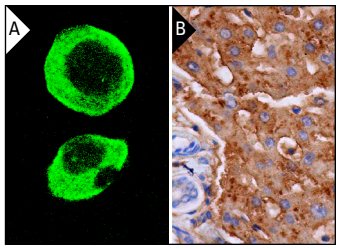
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



cathepsin D (N-19): sc-6488. Western blot analysis of immature cathepsin D expression in MCF7 (**A**) and ZR-75-1 (**B**) whole cell lysates.



cathepsin D (N-19): sc-6488. Immunofluorescence staining of methanol-fixed ZR-75-1 cells showing cytoplasmic staining (**A**). Immunoperox-idase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic and membrane staining of hepatocytes (**A**).

SELECT PRODUCT CITATIONS

1. Hoppe, G., et al. 2004. Accumulation of oxidized lipid-protein complexes alters phagosome maturation in retinal pigment epithelium. Cell. Mol. Life Sci. 61: 1664-1674.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.