SANTA CRUZ BIOTECHNOLOGY, INC.

cathepsin F (V-20): sc-9633

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, E and F. 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. Cathepsin F is widely expressed in human tissues, but it is most highly expressed in heart, skeletal muscle, brain, testis, and ovary. Cathepsin F is thought to play a role in normal protein catabolism, and because it is highly expressed in some cancer cell lines, it may be involved in degradative processes occurring during tumor progression.

CHROMOSOMAL LOCATION

Genetic locus: CTSF (human) mapping to 11q13.2; Ctsf (mouse) mapping to 19 A.

SOURCE

cathepsin F (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of cathepsin F 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-9633 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

cathepsin F (V-20) is recommended for detection of cathepsin F 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).

cathepsin F (V-20) is also recommended for detection of cathepsin F in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for cathepsin F siRNA (h): sc-41475, cathepsin F siRNA (m): sc-41476, cathepsin F shRNA Plasmid (h): sc-41475-SH, cathepsin F shRNA Plasmid (m): sc-41476-SH, cathepsin F shRNA (h) Lentiviral Particles: sc-41475-V and cathepsin F shRNA (m) Lentiviral Particles: sc-41476-V.

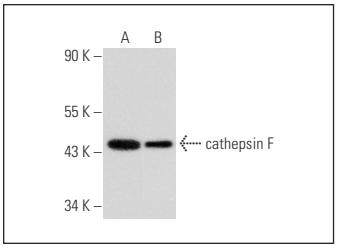
Molecular Weight of cathepsin F: 53 kDa.

Positive Controls: mouse liver extract: sc-2256, RD whole cell lysate: sc-364791 or HeLa whole cell lysate: sc-2200.

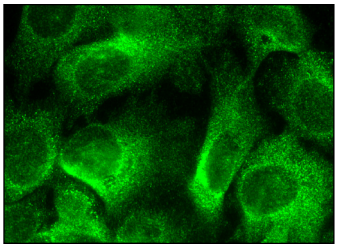
RECOMMENDED SECONDARY REAGENTS

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.

DATA



cathepsin F (V-20): sc-9633. Western blot analysis of cathepsin F expression in HeLa (**A**) and RD (**B**) whole cell lysates.



cathepsin F (V-20): sc-9633. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Singh, C.R., et al. 2006. Processing and presentation of a mycobacterial antigen 85B epitope by murine macrophages is dependent on the phagosomal acquisition of vacuolar proton ATPase and *in situ* activation of cathepsin D. J. Immunol. 177: 3250-3259.
2. Saghizadeh, M., et al. 2010. Adenovirus-driven overexpression of proteinases in organ-cultured normal human corneas leads to diabetic-like changes. Brain Res. Bull. 81: 262-272.

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.