SANTA CRUZ BIOTECHNOLOGY, INC.

cathepsin H (N-18): sc-6496

The Power to Question

BACKGROUND

Cathepsin H (also designated N-benzoylarginine-β-naphthylamide hydrolase, aleurain, cathepsin B3 or cathepsin BA) is a lysosomal cysteine proteinase that mediates degradation of lysosomal proteins. cathepsin H is a disulfide-linked heavy and light chain dimer produced from a single precursor protein. The encoded protein, which belongs to the peptidase C1 protein family, can act both as an aminopeptidase and as an endopeptidase. Elevated levels of cathepsin H correlates with malignant progression of prostate tumors. Two transcript variants encoding different isoforms have been found for this gene. Full-length and truncated cathepsin H [12-amino acid deletion in the signal peptide region (CTSHDelta10-21)] are expressed in prostate tissues, LNCaP, PC-3 and DU-145 prostate cancer cell lines. Cathepsin H mediates maturation of the biologically active surfactant protein-B (SP-B) peptide.

CHROMOSOMAL LOCATION

Genetic locus: CTSH (human) mapping to 15q25.1; Ctsh (mouse) mapping to 9 E3.1.

SOURCE

cathepsin H (N-18) is available as either goat (sc-6496) or rabbit (sc-6496-R) polyclonal affinity purified antibody raised against a peptide mapping at the N-terminus of cathepsin H 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-6496 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

cathepsin H (N-18) is recommended for detection of cathepsin H 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 H (N-18) is also recommended for detection of cathepsin H in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for cathepsin H siRNA (h): sc-29240, cathepsin H siRNA (m): sc-29935, cathepsin H shRNA Plasmid (h): sc-29240-SH, cathepsin H shRNA Plasmid (m): sc-29935-SH, cathepsin H shRNA (h) Lentiviral Particles: sc-29240-V and cathepsin H shRNA (m) Lentiviral Particles: sc-29935-V.

Molecular Weight of cathepsin H: 28 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, Hep G2 cell lysate: sc-2227 or LNCaP cell lysate: sc-2231.

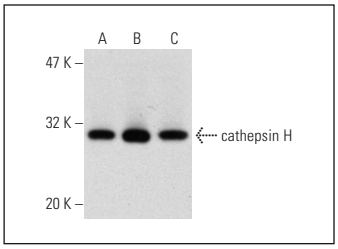
RESEARCH USE

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

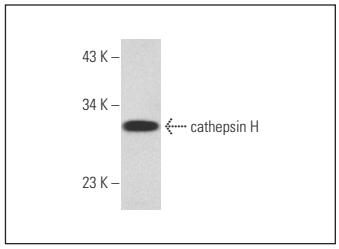
STORAGE

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

DATA



cathepsin H (N-18): sc-6496. Western blot analysis of cathepsin H expression in Hep G2 (**A**) and LNCaP (**B**) whole cell lysates and rat cerebellum tissue extract (**C**).



cathepsin H (N-18): sc-6496. Western blot analysis of cathepsin H expression in RAW 264.7 whole cell lysate.

SELECT PRODUCT CITATIONS

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4. Linnerth, N.M., et al. 2005. Use of a transgenic mouse model to identify markers of human lung tumors. Int. J. Cancer 114: 977-982.
5. 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.
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