

# pan cathepsin (N-20): sc-6499

## 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. Cathepsin L has been identified as a protein that is most closely related to cathepsin H.

## SOURCE

pan cathepsin (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of cathepsin 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-6499 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

pan cathepsin (N-20) is recommended for detection of a broad range of cathepsin proteins 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).

pan cathepsin (N-20) is also recommended for detection of a broad range of cathepsin proteins in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of pan cathepsin: 38 kDa.

Positive Controls: A549 cell lysate: sc-2413.

## 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.

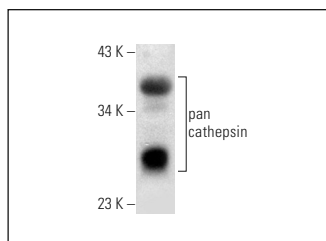
## RESEARCH USE

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

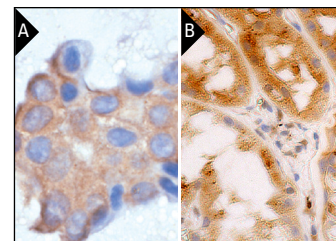
## STORAGE

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

## DATA



pan cathepsin (N-20): sc-6499. Western blot analysis of pan cathepsin expression in A549 whole cell lysate.



pan cathepsin (N-20): sc-6499. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor showing cytoplasmic staining (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in glomeruli and tubules (B).

## SELECT PRODUCT CITATIONS

- Gläser, K.E., et al. 2003. Differential distribution of cathepsins B and L in articular cartilage during skeletal development in the horse. *Equine Vet. J.* 35: 42-47.
- Dibas, A., et al. 2005. Localization of endothelin-converting enzyme in bovine optic nerve and retina. *J. Ocul. Pharmacol. Ther.* 21: 288-297.
- Sugiura, T., et al. 2006. Estrogen administration attenuates immobilization-induced skeletal muscle atrophy in male rats. *J. Physiol. Sci.* 56: 393-399.
- Yan, C.H., et al. 2007. Autophagy is involved in cytotoxic effects of crotoxin in human breast cancer cell line MCF-7 cells. *Acta Pharmacol. Sin.* 28: 540-548.
- Liton, P.B., et al. 2008. Cultured porcine trabecular meshwork cells display altered lysosomal function when subjected to chronic oxidative stress. *Invest. Ophthalmol. Vis. Sci.* 49: 3961-3969.
- Yang, Y.P., et al. 2008. Dynamic effects of autophagy on arsenic trioxide-induced death of human leukemia cell line HL60 cells. *Acta Pharmacol. Sin.* 29: 123-134.
- Li, W., et al. 2009. Cathepsin L is significantly associated with apoptosis and plaque destabilization in human atherosclerosis. *Atherosclerosis* 202: 92-102.

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Try **pan cathepsin (H-1): sc-376803** or **pan cathepsin (D-2): sc-377017**, our highly recommended monoclonal alternatives to pan cathepsin (N-20).