

cathepsin L (h3): 293T Lysate: sc-158353

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 (also designated major excreted protein, MEP or CATL) is a member of the peptidase C1 family and has been identified as a protein that is most closely related to cathepsin H. Cathepsin L is a lysosomal cysteine proteinase that mediates intracellular protein catabolism for collagen, elastin and α -1 protease inhibitor. Cathepsin L is a dimer composed of disulfide-linked heavy and light chains, both produced from a single protein precursor. At least two transcript variants encoding the same protein have been found for this gene. Transformed mouse fibroblasts stimulated by growth factors or tumor promoters secrete a form of cathepsin L.

REFERENCES

1. Ishidoh, K., et al. 1987. Molecular cloning and sequencing of cDNA for rat cathepsin L. *FEBS Lett.* 223: 69-73.
2. Joseph, L.J., et al. 1988. Complete nucleotide and deduced amino acid sequences of human and murine preprocathepsin L. An abundant transcript induced by transformation of fibroblasts. *J. Clin. Invest.* 81: 1621-1629.
3. Soderstrom, M., et al. 1999. Cathepsin expression during skeletal development. *Biochim. Biophys. Acta* 1446: 35-46.
4. Abudula, A., et al. 2001. Splice variants of human cathepsin L mRNA show different expression rates. *Biol. Chem.* 382: 1583-1591.
5. Bakhshi, R., et al. 2001. Cloning and characterization of human cathepsin L promoter. *Gene* 275: 93-101.

CHROMOSOMAL LOCATION

Genetic locus: CTSL1 (human) mapping to 9q21.33.

PRODUCT

cathepsin L (h3): 293T Lysate represents a lysate of human cathepsin L transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

cathepsin L (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive cathepsin L antibodies. Recommended use: 10-20 μ l per lane.

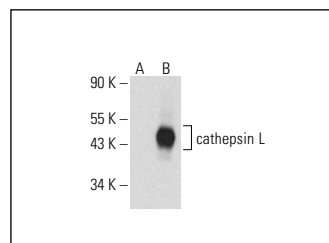
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

cathepsin L (CPLH-2D4): sc-32801 is recommended as a positive control antibody for Western Blot analysis of enhanced human cathepsin L expression in cathepsin L transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

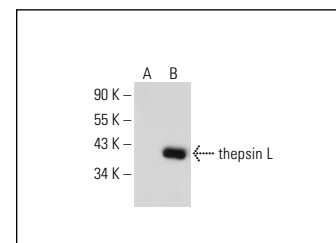
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



cathepsin L (CPLH-2D4): sc-32801. Western blot analysis of cathepsin L expression in non-transfected: sc-117752 (A) and human cathepsin L transfected: sc-158353 (B) 293T whole cell lysates.



pan cathepsin (D-2): sc-377017. Western blot analysis of cathepsin L expression in non-transfected: sc-117752 (A) and human cathepsin L transfected: sc-158353 (B) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.