**BACKGROUND**

Cathepsin C, known also as dipeptidyl aminopeptidase I (DPPI), is a tetrameric lysosomal cysteine peptidase belonging to the papain family. Cathepsin C is involved in intracellular protein degradation and the processing of protein precursors, where it participates in cell growth, neuraminidase activation and platelet factor XIII activation. Cathepsin C is largely related to other lysosomal cysteine proteinases, including cathepsin B, H and L. Enzymatically, cathepsin C is capable of sequentially removing dipeptides from the amino-terminus, and it requires halide ions, namely chloride ions and thiols for complete enzymatic activity. Protein levels of cathepsin C are detected in a variety of tissues, and it is most highly expressed in spleen, kidney, cytotoxic lymphocytes and myeloid cells, where it localizes to the secretory granule compartment. Cathepsin C is initially synthesized as a proenzyme that is rapidly processed to generate two distinct chains that function together as the mature form of the enzyme.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CTSC (human) mapping to 11q14.2; Ctc (mouse) mapping to 7 E1.

**SOURCE**

cathepsin C (H-144) is a rabbit polyclonal antibody raised against amino acids 251-394 mapping to the heavy chain cathepsin C 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.

**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.

**APPLICATIONS**

cathepsin C (H-144) is recommended for detection of cathepsin C 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 C (H-144) is also recommended for detection of cathepsin C in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for cathepsin C siRNA (h): sc-41471, cathepsin C siRNA (m): sc-41472, cathepsin C shRNA Plasmid (h): sc-41471-SH, cathepsin C shRNA Plasmid (m): sc-41472-SH, cathepsin C shRNA (h) Lentiviral Particles: sc-41471-V and cathepsin C shRNA (m) Lentiviral Particles: sc-41472-V.

Molecular Weight of cathepsin C: 55/25/7.8 kDa.

Positive Controls: M1 whole cell lysate: sc-364782 or HISM cell lysate: sc-2229.

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**DATA**

cathepsin C (H-144): sc-13986. Western blot analysis of cathepsin C expression in M1 whole cell lysate.

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

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