**BACKGROUND**

Cathepsin C, known also as dipetidyl 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.

**DATA**

**APPLICATIONS**

Cathepsin C (D-6) is recomended for detection of cathepsin C of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting 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).

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: 55/25/8 kDa.

**SOURCE**

Cathepsin C (D-6) is a mouse monoclonal antibody raised against amino acids 251-394 mapping mapping to the heavy chain of cathepsin C of human origin.

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide 0.1% gelatin.

Cathepsin C (D-6) is available conjugated to agarose (sc-74590 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-74590 HRP), 200 µg/ml, for WB, (HCP) and ELISA; to either phycocerythrin (sc-74590 PE), fluorescein (sc-74590 FITC), Alexa Fluor® 488 (sc-74590 AF488), Alexa Fluor® 546 (sc-74590 AF546), Alexa Fluor® 594 (sc-74590 AF594) or Alexa Fluor® 647 (sc-74590 AF647), 200 µg/ml, for WB (RGB), IF, (HCP) and FCM; and to either Alexa Fluor® 680 (sc-74590 AF680) or Alexa Fluor® 790 (sc-74590 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**STORAGE**

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

**CHROMOSOMAL LOCATION**

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

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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