Mouse Cathepsin C/DPPI Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1034

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Cathepsin C/DPPI in direct ELISAs and Western blots. In direct ELISAs, approximately 15% cross-reactivity with recombinant human (rh) Cathepsin C is observed and less than 1% cross-reactivity with recombinant mouse (rm) Cathepsin A, rmCathepsin B, rmCathepsin D, rmCathepsin H, and rmCathepsin X/Z/P is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Cathepsin C/DPPI Asp25-Leu462 Accession # P97821
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

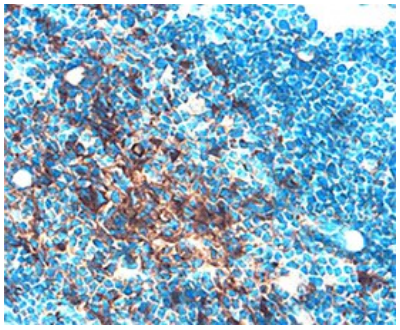
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse Cathepsin C/DPPI (Catalog # 1034-CY)
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



Cathepsin C/DPPI in Mouse Thymus. Cathepsin C/DPPI was detected in perfusion fixed frozen sections of mouse thymus using Goat Anti-Mouse Cathepsin C/DPPI Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1034) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counter-stained with hematoxylin (blue). Specific staining was localized to thymocytes. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Cathepsin C is a cysteine protease of the papain family (1). Cathepsin C sequentially removes dipeptides from the free N-termini of proteins and peptides. It has broad specificity except that it does not cleave a basic amino acid (Arg or Lys) in the N-terminal position or Pro on either side of the scissle bond. It requires halide ions for activity. The pro form contains a pro peptide and a catalytic region, which can be further processed into heavy/α and light/β chains that are linked by a disulfide bond. It is broadly distributed. Cathepsin C plays a role in the lysosomal degradation. It also functions as a key enzyme in the activation of granule serine proteases in cytotoxic T lymphocytes and natural killer cells (granzymes A and B), mast cells (tryptase and chymase), and neutrophils (Cathepsin G and elastase) by removing their N-terminal activation dipeptides (2).

References:

1. Turk, B. *et al.* (2004) in *Handbook of Proteolytic Enzymes.* Barrett, *et al.* eds. p. 1192, Academic Press, San Diego.
2. Dahl, S.W. *et al.* (2001) Biochemistry **40:**1671.