

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Cathepsin X/Z/P in direct ELISAs and Western blots. In direct ELISAs, approximately 40% cross-reactivity with recombinant human Cathepsin X/Z/P is observed and less than 2% cross-reactivity with recombinant mouse Cathepsin B, C, D, H, and L is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Cathepsin X/Z/P Ala23-Val306 Accession # Q9WUU7
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

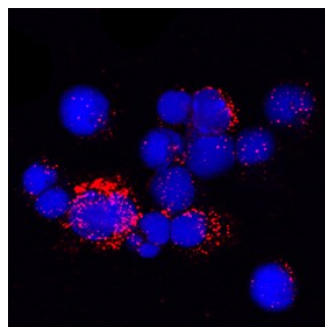
APPLICATIONS

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 X/Z/P (Catalog # 1033-C Y)
Immunocytochemistry	5-15 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Mouse Cathepsin X/Z/P (Catalog # 1033-C Y), see our available Western blot detection antibodies
Neutralization	Measured by its ability to neutralize Recombinant Mouse Cathepsin X/Z/P (0.1 µg/mL, Catalog # 1033-C Y) cleavage of the fluorogenic peptide substrate Mca-RPPGFSAFK(Dnp)-OH (10 µM, Catalog # ES005). The Neutralization Dose (ND ₅₀) is typically 2.0 µg/mL.	

DATA

Immunocytochemistry



Cathepsin X/Z/P in Mouse Splenocytes.
Cathepsin X/Z/P was detected in immersion fixed mouse splenocytes using Goat Anti-Mouse Cathepsin X/Z/P Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1033) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. [View our protocol for Fluorescent ICC Staining of Non-adherent Cells.](#)

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. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 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 X (also known as Cathepsin Z and P) is a relatively new cysteine protease of the papain family (1-5). Compared to other members of the papain family, Cathepsin X has a short proregion and unique insertions. The cysteine residue in the proregion forms a covalent and reversible bond with the active site cysteine residue (6). Acting as a carboxypeptidase, Cathepsin X displays a unique specificity (7-10). It is ubiquitously expressed in human tissues and conserved in other species such as mouse, nematode and echinuran. The nematode enzyme is apparently involved in molting of third stage larvae (11).

References:

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