Mouse Cathepsin B Biotinylated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: BAF965

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Cathepsin B in Western blots. In Western blots, approximately 50% cross-reactivity with recombinant human Cathepsin B is observed and 15% cross-reactivity with recombinant mouse (rm) Cathepsin A, rmCathepsin C, and rmCathepsin D is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Cathepsin B His18-Phe339 Accession # P10605
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

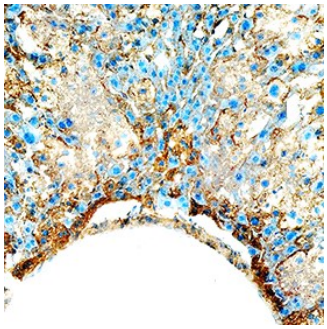
APPLICATIONS

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 B (Catalog # 965-C Y)
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



Cathepsin B in Mouse Liver. Cathepsin B was detected in perfusion fixed frozen sections of mouse liver using Goat Anti-Mouse Cathepsin B Biotinylated Antigen Affinity-purified Polyclonal Antibody (Catalog # BAF965) 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 counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm in hepatocytes. 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 B is the first described member of the family of lysosomal cysteine proteases (1). Cathepsin B possesses both endopeptidase and exopeptidase activities, in the latter case acting as a peptidyl-dipeptidase. It is known to process a number of proteins, including pro and active caspases, prorenin and secretory leucoprotease inhibitor (SLPI) (2-4). Therefore, Cathepsin B may play a role in activation and inactivation of caspases, activation of renin and inactivation of SLPI, the key steps in apoptosis, angiotensin production, and progression of emphysema, respectively. Because of its increased levels and redistribution in human and animal tumors, Cathepsin B may also have a role in invasion and metastasis (5). In addition to the lysosome, Cathepsin B can be secreted or associated with plasma membrane, cytoplasm, and nucleus. It is synthesized as a preproenzyme. Following removal of the signal peptide, the inactive proenzyme undergoes further modifications including removal of the pro region to result in the active enzyme (5).

References:

1. Mort, J.S. (2004) in *Handbook of Proteolytic Enzymes (*Barrett, A.J. *et al*. eds.) p. 1079, Academic Press, San Diego.
2. Vancompernolle, K. *et al*. (1998) FEBS Lett. **438:**150.
3. Jutras, I. and T.L. Reudelhuber (1998) FEBS Lett. **443:**48.
4. Taggart, C.C. *et al*. (2001) J. Biol. Chem. **276:**33345.
5. Berquin, I.M. and B.F. Sloane (1996) Adv. Exp. Med. Biol. **389:**281.

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