

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Cathepsin A/Lysosomal Carboxypeptidase A in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human Cathepsin A or recombinant mouse (rm) DPPIV/CD26 is observed. In
Source	Monoclonal Rat IgG _{2B} Clone # 191430
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Cathepsin A/Lysosomal Carboxypeptidase A Ala24-Tyr474 (predicted) Accession # P16675
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunoprecipitation	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Cathepsin A/lysosomal carboxypeptidase A is a member of the serine carboxypeptidase family (1, 2). Cathepsin A is a multifunctional enzyme that expresses deaminidase and esterase activities at neutral pH and carboxypeptidase activity at acidic pH. Also known as protective protein, its association with β-galactosidase (β-gal) and neuraminidase is essential for β-gal stability and neuraminidase activation in the lysosomes. Inherited deficiency of cathepsin A causes the lysosomal storage disorder galactosialidosis, characterized by a combined secondary deficiency of β-gal and neuraminidase. Cathepsin A is capable of hydrolyzing a variety of bioactive peptide hormones including tachykinins, indicating that extralysosomal cathepsin A plays a role in regulation of functions of these molecules (3). Cathepsin A is synthesized as a single-chain precursor and processed into heavy (32 kDa) and light (20 kDa) chains, which are linked by disulfide bonds.

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