

## DESCRIPTION

<b>Species Reactivity</b>	Mouse
<b>Specificity</b>	Detects both the pro and active forms of mouse Cathepsin D in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human Cathepsin D or recombinant mouse Cathepsin E is observed.
<b>Source</b>	Monoclonal Rat IgG <sub>2A</sub> Clone # 204712
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Mouse myeloma cell line NS0-derived recombinant mouse Cathepsin D Ile21-Leu410 Accession # P18242
<b>Conjugate</b>	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
<b>Formulation</b>	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.

## 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 D is a lysosomal aspartic protease of the pepsin family (4). Mouse Cathepsin D is synthesized as a precursor protein, consisting of a signal peptide (residues 1-20), a propeptide (residues 21-64), and a mature chain (residues 65-410) (1-3). It is expressed in most cells and overexpressed in breast cancer cells (5). It is a major enzyme in protein degradation in lysosomes, and also involved in the presentation of antigenic peptides. Mice deficient in this enzyme showed a progressive atrophy of the intestinal mucosa, a massive destruction of lymphoid organs, and a profound neuronal ceroid lipofucinos, indicating that Cathepsin D is essential for proteolysis of proteins regulating cell growth and tissue homeostasis (6). Cathepsin D secreted from human prostate carcinoma cells is responsible for the generation of angiostatin, a potent endogeneous inhibitor of angiogenesis (6).

## PRODUCT SPECIFIC NOTICES

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