Datasheet for ABIN968184

anti-Cathepsin D antibody

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Overview

Quantity:	150 µg
Target:	Cathepsin D (CTSD)
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Cathepsin D antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF)

Product Details

Immunogen:	Human Cathepsin D
Clone:	49-Cathepsin D
Isotype:	IgG2a
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing. 4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

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Target Details

Target:	Cathepsin D (CTSD)
Alternative Name:	Cathepsin D (CTSD Products)
Background:	Cathepsin D, an enzyme that degrades proteins, was originally cloned during the search of estrogen responsive genes in MCF-7 cells. Cathepsin D is synthesized as the 43kDa preprocathepsin D that is cleaved to form a 46kDa glycosylated procathepsin D. Procathepsin is then processed into a 44kDa active Cathepsin D. The active and mature forms undergo a further cleavage that yields 28kDa and 15kDa (heavy and light chains, respectively) fragments in SDS-PAGE. The heavy and light chains of Cathepsin D are released into the extracellular medium. The maturation process of Cathepsin D occurs through the transit from the endoplasmic reticulum, Golgi apparatus, and to the lysosomes. Estrogens stimulate cell proliferation in a number of tumor cell lines and anti-estrogen therapy is often used in the treatment of breast cancer patients. Therefore, Cathepsin D, which is estrogen inducible, may have a role during the pathogenesis of breast tumors. Additionally, several other roles have been proposed for this enzyme, such as tissue remodeling, tumor invasion, and embryo implantation.
Molecular Weight:	43/28 kDa
Pathways:	Peptide Hormone Metabolism

Application Details

Comment:	Related Products: ABIN967389, ABIN968587
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20°C.

Publications

Product cited in:

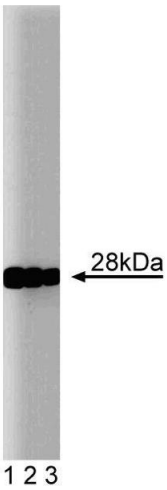
Westley, May: "Oestrogen regulates cathepsin D mRNA levels in oestrogen responsive human breast cancer cells." in: **Nucleic acids research**, Vol. 15, Issue 9, pp. 3773-86, (1987) (PubMed).

Faust, Kornfeld, Chirgwin: "Cloning and sequence analysis of cDNA for human cathepsin D." in: **Proceedings of the National Academy of Sciences of the United States of America**, Vol. 82, Issue 15, pp. 4910-4, (1985) (PubMed).

Erickson, Conner, Blobel: "Biosynthesis of a lysosomal enzyme. Partial structure of two transient and functionally distinct NH2-terminal sequences in cathepsin D." in: **The Journal of biological chemistry**, Vol. 256, Issue 21, pp. 11224-31, (1981) (PubMed).

Kageyama, Takahashi: "A cathepsin D-like acid proteinase from human gastric mucosa. Purification and characterization." in: **Journal of biochemistry**, Vol. 87, Issue 3, pp. 725-35, (1980) (PubMed).

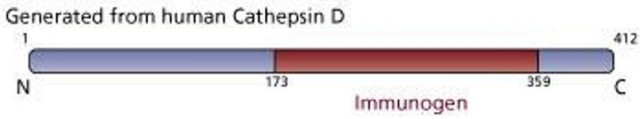
Images



Western Blotting

Image 1. Western blot analysis of Cathespin D on HepG2 cell lysate. Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000, dilution of anti-Cathespin D antibody.

Image 2.



Western Blotting

Image 3.