

Cathepsin D antibody [CTD-19]

Cat. No. GTX26313

Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a
Applications	WB, IHC-P, ELISA
Reactivity	Human

Package
100 µl

Applications

Application Note

*Optimal dilutions/concentrations should be determined by the researcher.

Suggested dilution	Recommended dilution
WB	1:1,000
IHC-P	1:200
ELISA	Assay dependent

Not tested in other applications.

Calculated MW	45 kDa. (Note)
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Product Note

Cathepsins are lysosomal proteases that play an important role in the intracellular degradation of exogenous and endogenous proteins, in activation of enzyme precursors, and in tumor invasion and metastasis. They are normally localized in lysosomes of almost all mammalian cells, but under certain conditions they can be secreted from the cells. Cathepsin D (CD, EC 3.4.23.5), an aspartyl endopeptidase, is induced by estrogen in certain estrogen receptor (ER)-positive breast cancer cell lines, but is produced constitutively by ER-negative cell lines. Cathepsin D is synthesized as a 52 kDa inactive precursor (pro-cathepsin D). Proteolytic removal of the amino-terminal 43 amino acid fragment and cleavage at an internal site results in an enzymatically active 48 kDa heterodimer consisting of two chains of 14 and 34 kDa. The level of CD synthesized by cells is increased in response to mitogenic signals from estrogen, EGF, FGF, and IGF- I. The ability of tumor cells to invade the extracellular matrix has been attributed to cathepsins released by tumor cells or associated with the plasma membrane of tumor cells. CD is capable of digesting extracellular matrix proteins in in vivo models. Transfection of the CD gene into rat cells increases their tumorigenicity when injected into nude mice. Indeed, the concentrations of CD are significantly higher in breast carcinomas than in either normal breast tissues or benign breast tumors.

Properties

Form	Liquid
Buffer	Ascites
Preservative	15mM Sodium azide
Storage	Store as concentrated solution. Centrifuge briefly prior to opening vial. For short-term storage (1-2 weeks), store at 4°C. For long-term storage, aliquot and store at -20°C or below. Avoid multiple freeze-thaw cycles.
Immunogen	human liver cathepsin D.



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Purification	Unpurified
Conjugation	Unconjugated
Note	<p>For laboratory research use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.</p> <p>Purchasers shall not, and agree not to enable third parties to, analyze, copy, reverse engineer or otherwise attempt to determine the structure or sequence of the product.</p>



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