SunLong Biotech Co.,LTD
Tel: 0086-571- 56623320 Fax:0086-571- 56623318
E-mail:sales@sunlongbiotech.com
www.sunlongbiotech.com

# Mouse Anti-Cathepsin D antibody (SLM51237M)

SLM51237M

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| **Product Name:** | Cathepsin D |
| **Chinese Name:** | 小鼠抗组织蛋白酶D轻链抗体 |
| **Alias:** | Cathepsin D light chain; CatD; CathepsinD; Cathepsin-D; CLN10; CPSD; CTSD; Lysosomal aspartyl peptidase; MGC2311; CATD_HUMAN. |
| **Organism Species:** | Mouse |
| **Clonality:** | Monoclonal |
| **克隆号:** | 7B4 |
| **React Species:** | Human, |
| **Applications:** | WB=1:500-2000ELISA=1:500-1000IHC-P=1:20-100IHC-F=1:20-100（Paraffin sections need antigen repair）<br>not yet tested in other applications.<br>optimal dilutions/concentrations should be determined by the end user. |
| **Molecular weight:** | 11/38/45kDa |
| **Cellular localization:** | cytoplasmicSecretory protein |
| **Form:** | Lyophilized or Liquid |
| **Concentration:** | 1mg/ml |
| **immunogen:** | Recombinant human Cathepsin D: |
| **Lsotype:** | IgG1 |
| **Purification:** | affinity purified by Protein G |
| **Storage Buffer:** | 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol. |
| **Storage:** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |
| **PubMed:** | PubMed |
| **Product Detail:** | Cathepsin D is a normal lysosomal protease that is expressed in all cells. It is an aspartyl protease with a pH optimum in the range of 3-5, and contains two N-linked oligosaccharides. Cathepsin D is synthesized as an inactive 52 kDa pro enzyme. Activation involves the proteolytic removal of the 43 amino acid profragment and an |

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| | internal cleavage to generate the two-chain form made up of 34 and 14 kDa subunits. Cathepsin D contains the mannose-6-phosphate lysosomal localization signal that targets the enzyme to the lysosomal compartment where it functions in the normal degradation of proteins. In certain tumor cells, Cathepsin D is abnormally processed and is secreted in its 52 kDa precursor form. Numerous clinical studies as well as in vitro evidence suggest that cathepsin D plays an important role in malignant transformation and may be a useful prognostic indicator for breast cancer and possibly Alzheimer's disease.<br><br>**Function:**<br>Acid protease active in intracellular protein breakdown. Involved in the pathogenesis of several diseases such as breast cancer and possibly Alzheimer disease.<br><br>**Subcellular Location:**<br>Lysosome. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.<br><br>**Tissue Specificity:**<br>Expressed in the aorta extrcellular space (at protein level).<br><br>**Post-translational modifications:**<br>N- and O-glycosylated.<br><br>**DISEASE:**<br>Defects in CTSD are the cause of neuronal ceroid lipofuscinosis type 10 (CLN10); also known as neuronal ceroid lipofuscinosis due to cathepsin D deficiency. A form of neuronal ceroid lipofuscinosis with onset at birth or early childhood. Neuronal ceroid lipofuscinoses are progressive neurodegenerative, lysosomal storage diseases characterized by intracellular accumulation of autofluorescent liposomal material, and clinically by seizures, dementia, visual loss, and/or cerebral atrophy.<br><br>**Similarity:**<br>Belongs to the peptidase A1 family.<br><br>**SWISS:**<br>P07339<br><br>**Gene ID:**<br>1509<br><br>**Database links:**<br><br>Entrez Gene: 1509Human<br><br>Entrez Gene: 13033Mouse<br><br>Omim: 116840Human |

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| | SwissProt: P07339Human<br><br>SwissProt: P18242Mouse<br><br>Unigene: 654447Human<br><br>Unigene: 231395Mouse<br><br>**Important Note:**<br>This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |