

Anti-Cathepsin D Picoband Antibody

Catalog # ABO12540

Product Information

Application	WB, IHC-P
Primary Accession	P07339
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Cathepsin D(CTSD) detection. Tested with WB, IHC-P in Human.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	1509
Other Names	Cathepsin D, 3.4.23.5, Cathepsin D light chain, Cathepsin D heavy chain, CTSD, CPSD
Calculated MW	44552
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat Western blot, 0.1-0.5 µg/ml, Human
Subcellular Localization	Lysosome. Melanosome. Secreted, extracellular space. Identified by mass spectrometry in melanosome fractions from stage I to stage IV. In aortic samples, detected as an extracellular protein loosely bound to the matrix (PubMed:20551380). .
Tissue Specificity	Expressed in the aorta extracellular space (at protein level). .
Source	Eukaryota
Protein Name	Cathepsin D
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E.coli-derived human Cathepsin D recombinant protein (Position: M201-L412). Human Cathepsin D shares 84.4% and 84% amino acid (aa) sequence identity with mouse and rat Cathepsin D, respectively.
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20° C for one year. After reconstitution, at 4° C for one month. It can also be aliquotted and stored frozen at -20° C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	CTSD
Synonyms	CPSD
Function	Acid protease active in intracellular protein breakdown. Plays a role in APP processing following cleavage and activation by ADAM30 which leads to APP degradation (PubMed: 27333034). Involved in the pathogenesis of several diseases such as breast cancer and possibly Alzheimer disease.
Cellular Location	Lysosome. Melanosome. Secreted, extracellular space. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV. In aortic samples, detected as an extracellular protein loosely bound to the matrix (PubMed:20551380)
Tissue Location	Expressed in the aorta extracellular space (at protein level) (PubMed:20551380). Expressed in liver (at protein level) (PubMed:1426530).

Background

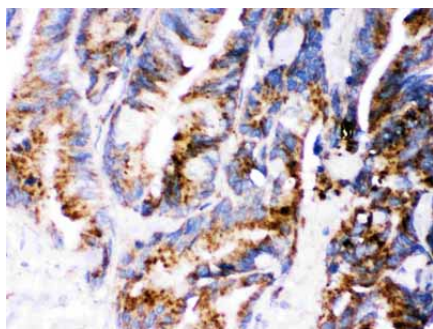
Cathepsin D is a protein that in humans is encoded by the CTSD gene. This proteinase is a member of the peptidase C1 family, having a specificity similar to but narrower than that of pepsin A. It is mapped to 11p15.5. The cDNA encodes a 412-amino acid protein with 20 and 44 amino acids in a pre- and prosegment, respectively. Cathepsin D is one of the lysosomal proteinases. It is ubiquitously expressed and is involved in proteolytic degradation, cell invasion, and apoptosis. Mutations in this gene are involved in the pathogenesis of several diseases, including breast cancer and possibly Alzheimer disease and it has been considered as a breast cancer tumor marker.

Images



Western blot analysis of Cathepsin D expression in HEPG2 whole cell lysates (lane 1), A549 whole cell lysates (lane 2) and PANC whole cell lysates (lane 3). Cathepsin D at 28KD was detected using rabbit anti- Cathepsin D Antigen Affinity purified polyclonal antibody (Catalog # ABO12540) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method .

Cathepsin D was detected in paraffin-embedded sections of human Intestinal cancer tissues using rabbit anti- Cathepsin D Antigen Affinity purified polyclonal antibody (Catalog # ABO12540) at 1 µg/mL. The immunohistochemical section was developed using SABC method .



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