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CTSD Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20675b

Product Information

Application	WB, IF, IHC-P-Leica, E
Primary Accession	P07339
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB44366
Calculated MW	44552
Antigen Region	1-412

Additional Information

Gene ID	1509
Other Names	Cathepsin D, Cathepsin D light chain, Cathepsin D heavy chain, CTSD, CPSD
Target/Specificity	This antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between amino acids from human.
Dilution	WB~~1:1000 IF~~1:25 IHC-P-Leica~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	CTSD Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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).

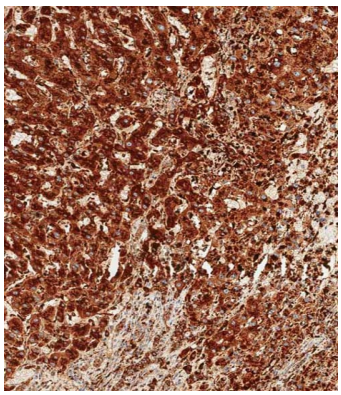
Background

Acid protease active in intracellular protein breakdown. Involved in the pathogenesis of several diseases such as breast cancer and possibly Alzheimer disease.

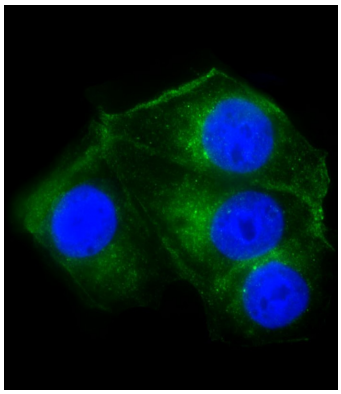
References

Faust P.L.,et al.Proc. Natl. Acad. Sci. U.S.A. 82:4910-4914(1985).
Westley B.R.,et al.Nucleic Acids Res. 15:3773-3786(1987).
Redecker B.,et al.DNA Cell Biol. 10:423-431(1991).
Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.

Images

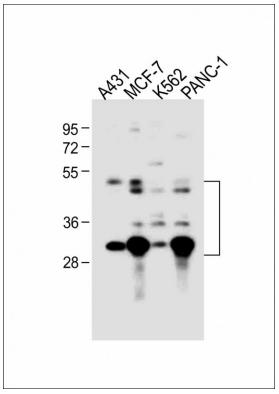


Immunohistochemical analysis of paraffin-embedded human liver tissue using AP20675b performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature; antigen retrieval was by heat mediation with a EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:1000) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0. 1% Triton X-100 permeabilized MCF-7 cells labeling CTSD with AP20675b at 1/25 dilution, followed by Dylight® 488-conjugated goat anti-Rabbit IgG (OH191631) secondary antibody at 1/200 dilution (green). Immunofluorescence image showing cytoplasm staining on MCF-7 cell line. Cytoplasmic actin is detected with Dylight® 554 Phalloidin (1186255) at 1/500 dilution (red). The nuclear counter stain is DAPI (blue).

All lanes : Anti-CTSD Antibody at 1:1000 dilution Lane 1: A431 whole cell lysate Lane 2: MCF-7 whole cell lysate Lane 3: K562 whole cell lysate Lane 4: PANC-1 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000



dilution. Predicted band size : 45 kDa Blocking/Dilution buffer: 5% NFDM/TBST.