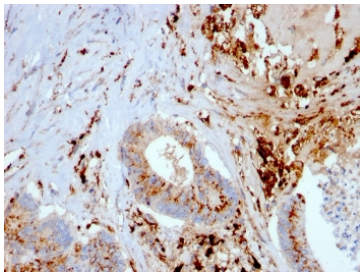
Cathepsin D Antibody [clone CTSD/3082] (V7702)

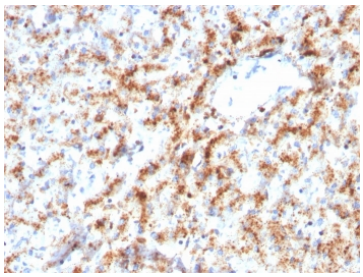
Catalog No.	Formulation	Size
V7702-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7702-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7702SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

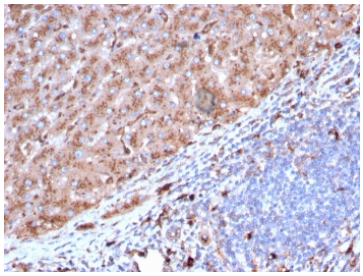
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	CTSD/3082
Purity	Protein G affinity chromatography
UniProt	P07339
Localization	Cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml Western blot: 1-2ug/ml
Limitations	This Cathepsin D antibody is available for research use only.



Cathepsin D Antibody Liver Carcinoma IHC. Immunohistochemistry analysis of FFPE human liver carcinoma tissue using Cathepsin D antibody (clone CTSD/3082) shows strong granular cytoplasmic staining in tumor cells and prominent signal in infiltrating macrophages, consistent with CTSD / Cathepsin D localization in lysosomal compartments. The punctate staining pattern reflects lysosomal protease activity associated with intracellular protein degradation and tumor-associated macrophage function. Tumor architecture is preserved, and hematoxylin counterstain provides nuclear contrast and structural context. HIER: boil FFPE tissue sections in pH 9 10 mM Tris with 1 mM EDTA for 10-20 min and allow to cool before testing.



IHC staining of FFPE human liver with Cathepsin D antibody (clone CTSD/3082). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min and allow to cool before testing.



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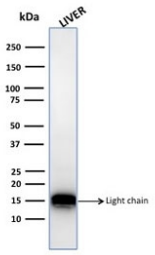
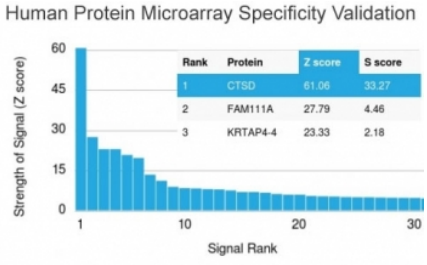
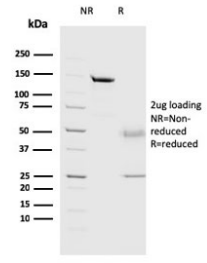


Western blot testing of human liver lysate with Cathepsin D antibody.



Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using Cathepsin D antibody (clone CTSD/3082). These results demonstrate the foremost specificity of the CTSD/3082 mAb.
Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



SDS-PAGE analysis of purified, BSA-free Cathepsin D antibody (clone CTSD/3082) as confirmation of integrity and purity.

Description

Cathepsin D is a ubiquitously expressed lysosomal aspartyl protease involved in the normal degradation of proteins. It is synthesized as an inactive 52kDa preprocathepsin D that is cleaved and glycosylated to form a 48kDa procathepsin D and then further cleaved to produce 34kDa and 14kDa subunits (heavy and light chains, respectively). Cathepsin D exhibits pepsin-like activity and plays a role in protein turnover and in the proteolytic activation of hormones and growth factors. Mutations in this gene play a causal role in neuronal ceroid lipofuscinosis-10 and may be involved in the pathogenesis of several other diseases, including breast cancer and possibly Alzheimer's disease.

This antibody can be compared with our Cathepsin D Antibody / CTSD Antibody (clone CTSD/3276) as a central reference for consistent CTSD detection across multiple assay formats.

Application Notes

Optimal dilution of the Cathepsin D antibody should be determined by the researcher.

Immunogen

A recombinant human partial protein (amino acids 104-250) was used as the immunogen of the Cathepsin D antibody.

Storage

Store the Cathepsin D antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

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