

## Product Datasheet

### CTSD Antibody / Cathepsin D (orb2635408)

<b>Description</b>	Cathepsin D is a ubiquitously expressed lysosomal aspartyl protease involved in the normal degradation of proteins. It is synthesized as an inactive 43kDa preprocathepsin D that is cleaved and glycosylated to form a 46kDa procathepsin D and then further cleaved to produce 28kDa and 15kDa 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 Alzheimers disease.
<b>Species/Host</b>	Mouse
<b>Reactivity</b>	Human
<b>Conjugation</b>	Unconjugated
<b>Tested Applications</b>	IHC-P, WB
<b>Immunogen</b>	Purified His-tagged CTSD protein was used as the immunogen for the CTSD antibody.
<b>Storage</b>	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.
<b>Note</b>	For research use only
<b>Application notes</b>	Optimal dilution of the CTSD antibody should be determined by the researcher.
<b>Formula</b>	1 mg/ml in 1X PBS; BSA free, sodium azide free
<b>Isotype</b>	Mouse IgG1, kappa
<b>Clonality</b>	Monoclonal
<b>Clone Number</b>	CTSD/4497
<b>Antibody Type</b>	Primary Antibody

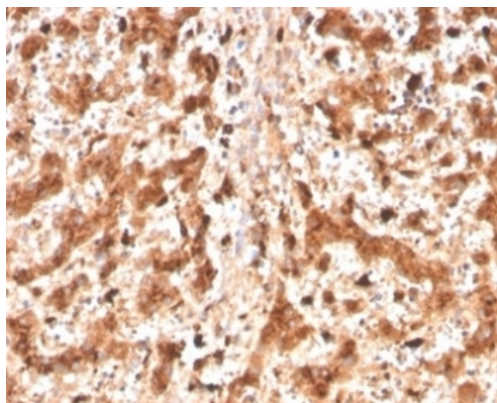
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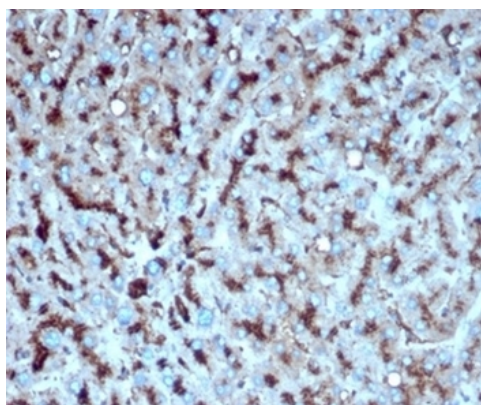
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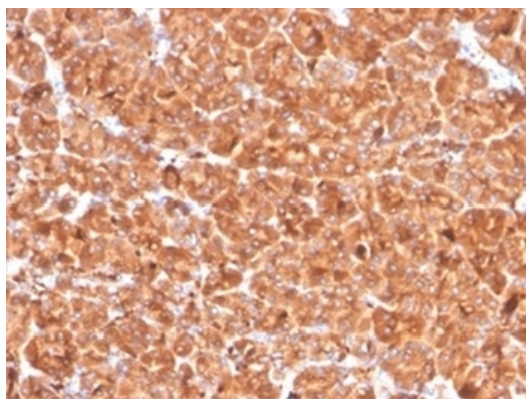
<b>Uniprot ID</b>	<b>P07339</b>
<b>Hazard Information</b>	This CTSD antibody is available for research use only.
<b>Dilution Range</b>	Western blot: 1-2ug/ml, Immunohistochemistry (FFPE): 1-2ug/ml
<b>Expiration Date</b>	12 months from date of receipt.



IHC staining of FFPE human liver tissue with CTSD antibody (clone CTSD/4497). HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human liver carcinoma in colon tissue with CTSD antibody (clone CTSD/4497). HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



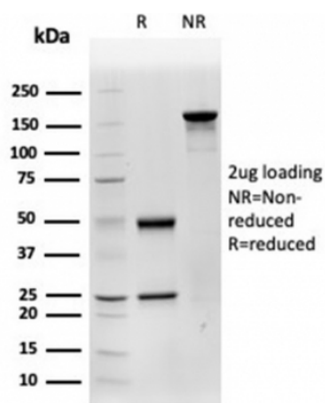
IHC staining of FFPE human pancreas tissue with Cathepsin D antibody (clone CTSD/4497). HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

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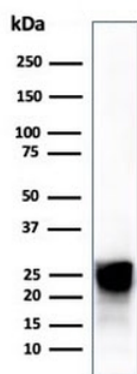
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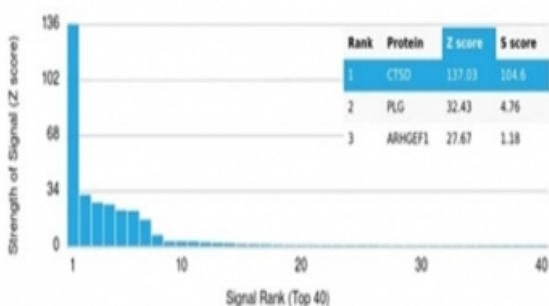


SDS-PAGE analysis of purified, BSA-free CTSD antibody (clone CTSD/4497) as confirmation of integrity and purity.



Western blot testing of human liver tissue lysate using CTSD antibody (clone CTSD/4497).

#### Human Protein Microarray Specificity Validation



Analysis of HuProt (TM) microarray containing more than 19000 full-length human proteins using CTSD antibody (clone CTSD/4497). These results demonstrate the foremost specificity of the CTSD/4497 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.

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