

**Cathepsin S Antibody**  
**Rabbit Polyclonal Antibody**  
**Catalog # ABV11237****Specification**

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**Cathepsin S Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P25774</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	37496

**Cathepsin S Antibody - Additional Information****Gene ID** 1520

Positive Control	Western Blot: Jurkat cell lysate, mouse muscle lysate, recombinant protein
Application & Usage	Western blot: 1-4 µg
<b>Other Names</b>	
CTSS	

**Target/Specificity**  
Cathepsin S**Antibody Form**  
Liquid**Appearance**  
Colorless liquid**Formulation**  
100 µg (0.5 mg/ml) of antibody in PBS pH 7.2, 0.01 % BSA, 0.03 % ProClin®, and 50 % glycerol.**Handling**  
The antibody solution should be gently mixed before use.**Reconstitution & Storage**  
-20 °C**Background Descriptions****Precautions**  
Cathepsin S Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

## Cathepsin S Antibody - Protein Information

**Name** CTSS

### Function

Thiol protease. Key protease responsible for the removal of the invariant chain from MHC class II molecules and MHC class II antigen presentation (PubMed:<a href="http://www.uniprot.org/citations/30612035" target="\_blank">30612035</a>). The bond-specificity of this proteinase is in part similar to the specificities of cathepsin L.

### Cellular Location

Lysosome. Secreted. Cytoplasmic vesicle, phagosome

## Cathepsin S Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Cathepsin S Antibody - Images

## Cathepsin S Antibody - Background

Cathepsin S (CTSS) is a lysosomal cysteine protease of the papain family and may participate in the degradation of antigenic proteins to peptides for presentation on MHC class II molecules. CTSS is synthesized as inactive precursor of 331 amino acids consisting of a 15-aa signal peptide, a propeptide of 99 aa, and a mature polypeptide of 217 aa. It is activated in the lysosomes by a proteolytic cleavage of the propeptide. The deduced amino acid sequence contains only one potential N-glycosylation site located in the propeptide. Compared with the abundant cathepsins B, L and H, cathepsin S shows a restricted tissue distribution, with highest levels in spleen, heart, and lung. In addition, evidences indicate that cathepsin S generates amyloid beta-peptide from amyloidogenic fragments of amyloid precursor protein (APP) in the endosomal/lysosomal compartment, and is implicated in the pathogenesis of Alzheimer's disease and Down Syndrome.