

## Cathepsin B Antibody

Catalog No: #48118



Package Size: #48118-1 50ul #48118-2 100ul

Orders: [order@signalwayantibody.com](mailto:order@signalwayantibody.com)Support: [tech@signalwayantibody.com](mailto:tech@signalwayantibody.com)

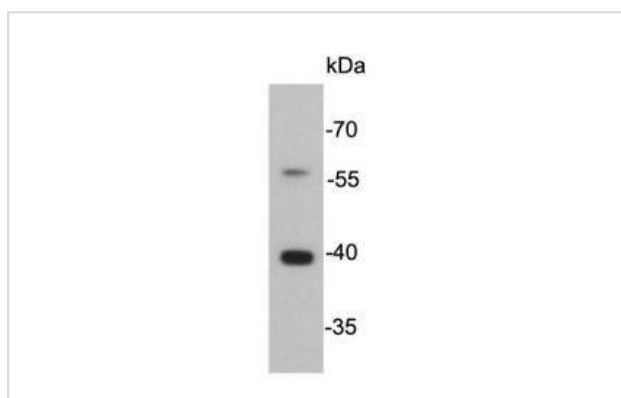
## Description

|                       |  |
|-----------------------|--|
| Product Name          | Cathepsin B Antibody   |
| Host Species          | Mouse  |
| Clonality             | Monoclonal   |
| Clone No.             | J11-A11  |
| Purification          | ProA affinity purified   |
| Applications          | WB, ICC, IHC   |
| Species Reactivity    | Hu, zebrafish  |
| Immunogen Description | recombinant protein  |
| Other Names           | Amyloid precursor protein secretase antibody APP secretase antibody APPS antibody CATB_HUMAN antibody Cathepsin B heavy chain antibody Cathepsin B1 antibody CathepsinB antibody CPSB antibody CTSB antibody cysteine protease antibody OTTHUMP00000116009 antibody OTTHUMP00000229510 antibody OTTHUMP00000229511 antibody OTTHUMP00000229512 antibody OTTHUMP00000229514 antibody OTTHUMP00000229515 antibody OTTHUMP00000229516 antibody Preprocathepsin B antibody |
| Accession No.         | Swiss-Prot#:P07858   |
| Calculated MW         | 38kDa  |
| Formulation           | 1*TBS (pH7.4), 1%BSA, 40%Glycerol. Preservative: 0.05% Sodium Azide.   |
| Storage               | Store at -20°C   |

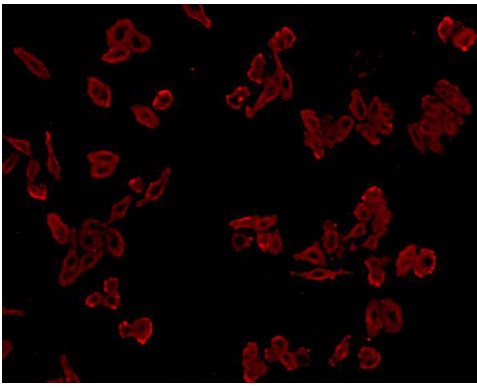
## Application Details

WB: 1:5,000-1:10,000 ICC: 1:200-1:500

## Images



Western blot analysis of Cathepsin B on SW480 cell lysate using anti-Cathepsin B antibody at 1/5,000 dilution.



ICC staining Cathepsin B in HepG2 cells (red). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

## Background

Cathepsin B is an enzymatic protein belonging to the peptidase (or protease) families. In humans, it is coded by the CTSB gene. A wide array of diseases results in elevated levels of cathepsin B, which causes numerous pathological processes including cell death, inflammation, and production of toxic peptides. Focusing on neurological diseases, cathepsin B gene knockout studies in an epileptic rodent model have shown cathepsin B causes a significant amount of the apoptotic cell death that occurs as a result of inducing epilepsy. Mutations in the CTSB gene have been linked to tropical pancreatitis, a form of chronic pancreatitis.

## References

1. Tandon RK (January 2007). "Tropical pancreatitis". *J. Gastroenterol.* 42 (Suppl 17): 141β 7.
2. Klein, D.M.; Felsestein, K.M.; Brenneman, D.E. (2009). "Cathepsins B and L differentially regulate amyloid precursor protein processing". *J Pharmacol Exp Ther* 329 (3): 813β 21.
3. Kindy, M.S.; Yu, J.; Zhu, H.; El-Amouri, S.S.; Hook, V.; Hook, G.R. (2012). "Deletion of the Cathepsin B Gene Improves Memory Deficits in a Transgenic Alzheimer's Disease Mouse Model Expressing AbetaPP Containing the Wild-Type beta-Secretase Site Sequence". *J Alzheimers Dis* 29 (4): 827β 40.

## Published Papers

el at., Coprophagy Prevention Decreases the Reproductive Performance and Granulosa Cell Apoptosis via Regulation of CTSB Gene in Rabbits. In *Front Physiol*

on 2022 Jul 18 by Guohua Song, Yadong Wang, et al.. PMID:35923240, (2022)

[PMID:35923240](https://pubmed.ncbi.nlm.nih.gov/35923240/)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.