

Cathepsin B

Cat#: M1506-1
Quantity: 100ul

Product Type: Mouse mAb **Isotype:** IgG1, κ chain **Clone ID:** J11-A11

Species reactivity: Human

Positive control: SW480, HepG2

Subcellular location: Lysosome, secreted

Database links: SwissProt P07858 (human)

Applications: ICC, WB

Lot#: See on the tube

Form: Liquid

Molecular Wt.: 38kDa

Description: Cathepsin B is an enzymatic protein belonging to the peptidase (or protease) family, encoded 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.

Immunogen: This antibody is produced by immunizing mice with a synthetic peptide (KLH-coupled) corresponding to a region of Cathepsin B.

Recommended Dilutions:

WB: 1:5,000-1:10,000

ICC: 1:200-1:500

Buffer: 1*TBS (pH7.4), 0.5%BSA, 40%Glycerol.

Preservative: 0.05% Sodium Azide.

Storage: Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

Purity: ProA affinity purified.

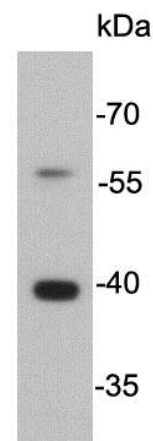


Fig1: Western blot analysis on SW480 cell lysates using anti-Cathepsin B mouse mAb.

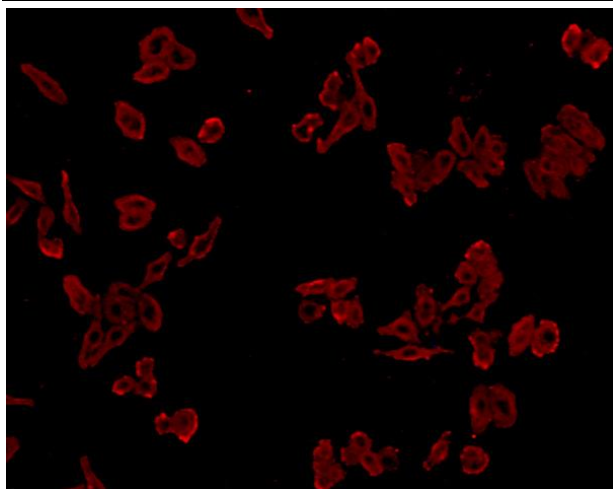


Fig2: ICC staining Cathepsin B in HepG2 cells (red). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

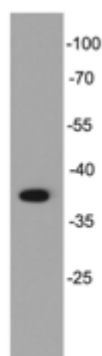


Fig3: Western blot analysis on zebra fish lysates using anti- Cathepsin B mouse mAb.

Background References:

1. Tandon RK (January 2007). "Tropical pancreatitis". *J. Gastroenterol.* 42 (Suppl 17): 141–7.
2. Klein, D.M.; Felsentein, K.M.; Brenneman, D.E. (2009). "Cathepsins B and L differentially regulate amyloid precursor protein processing". *J Pharmacol Exp Ther* 329 (3): 813–21.
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): 827–40.