

Product datasheet for **AM20212BT-N**

LC3B (MAP1LC3B) (N-term) (incl. pos. control) Mouse Monoclonal Antibody [Clone ID: 5F10]

Product data:

Product Type:	Primary Antibodies
Clone Name:	5F10
Applications:	IF, WB
Recommended Dilution:	Immunoblotting: 0.5 µg/ml for HRPO/ECL detection <i>Recommended blocking buffer:</i> Casein/Tween 20 based blocking and blot incubation buffer. We strongly recommend to use PVDF membranes for immunoblot analysis. Immunocytochemistry: Use at 1-10 µg/ml Paraformaldehyd/Methanol fixation). <i>Included Positive Control:</i> Cell lysate from untreated Neuro 2A (See Protocols).
Reactivity:	Canine, Hamster, Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Synthetic peptide hemocyanin conjugated derived from the N-terminus of LC3-B
Specificity:	This antibody specifically recognizes both forms of endogenous LC3, the cytoplasmic LC3-I (18 kDa) as well as the lipidated form generated during autophagosome and autophagolysosome formation: LC3-II (16 kDa). Immunocytochemical staining of cells with AM20212PU-N LC3 antibody (Clone 5F10) reveals the specific punctate distribution of endogenous LC3-II as a hallmark of autophagic activity.
Formulation:	PBS / 0.09% Sodium Azide / PEG and Sucrose Label: Biotin State: Liquid purified IgG fraction.
Purification:	Subsequent Ultrafiltration and Size Exclusion Chromatography.
Conjugation:	Biotin
Storage:	Aliquote and freeze in liquid nitrogen. Antibody can be stored frozen at -80°C up to 1 year. Thaw aliquots at 37°C. Thawed aliquots may be stored at 4°C up to 3 months.
Gene Name:	microtubule associated protein 1 light chain 3 beta



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Database Link: [Entrez Gene 64862 RatEntrez Gene 67443 MouseEntrez Gene 81631 Human Q9GZQ8](#)

Background: Autophagy is an alternative process of proteasomal degradation for some long-lived proteins or organelles. Alterations in the autophagic-lysosomal compartment have been linked to neuronal death in many neurodegenerative disorders as well as in transmissible neuronal pathologies (prion diseases). Genetic studies in yeast have shown that Autophagy-defective Gene-8 (Atg-8) represents a specific marker for autophagy. Among the four families of mammalian Atg8-related proteins only LC3 (microtubule-associated protein1 light chain 3) is expressed at sufficient high levels and efficiently recruited to autophagic vesicles in cells and tissues. During autophagy the cytoplasmic form, LC3-I is processed and recruited to autophagosomes, where LC3-II is generated by site specific proteolysis near to the C-terminus. Autophagic vacuoles have been also reported frequently in cardiomyopathies or muscle cells exposed to different experimental settings.

Synonyms: MAP1LC3B, MAP1A/MAP1B, Map1lc3b, Map1alc3, Map1lc3

Note: **Molecular Weight:** 18 kDa (LC3-I), 16 kDa (LC-II)

Protocol: **Positive Control: Cell lysate from untreated Neuro 2A cells, brain endothelioma (Mouse)**

Format: Lyophilized cell lysate from serum starved Neuro 2A.

Reconstitution: Restore by addition of 200 µl H₂O. After complete solubilization add 200 µl 2x SDS-PAGE sample buffer, mix and incubate at 90°C for 5 min.

Application: The positive control cell lysate is recommended for immunoblot applications. 20 µl of positive control cell lysate correspond to ca. 20.000 cells. Use 20 µl/lane (mini gel) for HRPO/ECL detection of the target proteins. Please NOTE: The lyophilized cell lysates contain SDS and are not recommended for applications with native proteins such as in immunoprecipitation.

Storage: Aliquote reconstituted product and store frozen. Avoid repeated freezing and thawing.