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Product datasheet for AM20213PU-N

LC3B (MAP1LC3B) (N-term) (incl. pos. control) Mouse Monoclonal Antibody [Clone ID: 2G6]

Product data:

Product Type:	Primary Antibodies
Clone Name:	2G6
Applications:	IF, WB
Recommended Dilution:	**Immunoblotting:** 0.5 µg/ml for HRPO/ECL detection *Recommended blocking buffer:* 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). *Included Positive Control:* Cell lysate from untreated Neuro 2A (See Protocol below).
Reactivity:	Hamster, Human, Monkey, 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).
Formulation:	PBS containing 0.09% Sodium Azide, PEG and Sucrose/50% Glycerol State: Purified State: Liquid purified IgG fraction
Concentration:	lot specific
Purification:	Subsequent Ultrafiltration and Size Exclusion Chromatography
Conjugation:	Unconjugated
Storage:	Store the antibody (in aliquots) at -20°C. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	microtubule associated protein 1 light chain 3 beta
Database Link:	Entrez Gene 64862 RatEntrez Gene 67443 MouseEntrez Gene 81631 Human Q9GZQ8

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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)**

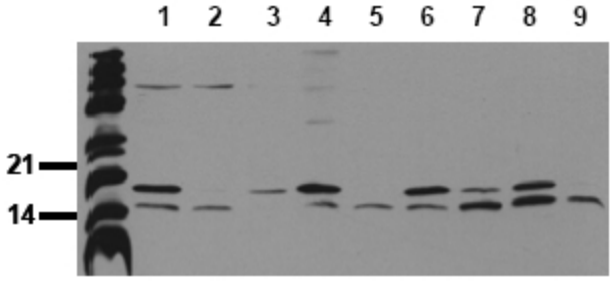
Format: Lyophilized cell lysate from serum starved Neuro 2A.

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 conatin SDS and are not recommended for applications with native proteins such as in immunoprecipitation.

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

Product images:



Detection of endogenous LC-3: Whole cell lysates of untreated tumor cells were applied to SDS-PAGE and transferred to a PVDF membrane. The immunoblot was probed with LC3 antibody (Clone: 2G6) at 0.5 ug/ ml for 1h at RT and developed by ECL (exp. time: 30 sec). Lane 1: HeLa Lane 2: HepG2 Lane 3: HEK 293 Lane 4: SH-SY5Y Lane 5: MDCK Lane 6: PC12 Lane 7: CMT Lane 8: Neuro2A Lane 9: NIH-3T3