

## Product datasheet for **AM20214PU-N**

### LC3B (MAP1LC3B) (incl. pos. control) Mouse Monoclonal Antibody [Clone ID: 5H3]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	5H3
Applications:	IF, WB
Recommended Dilution:	<b>Immunoblotting:</b> 0.5 µg/ml for HRPO/ECL detection <i>Recommended blocking buffer:</i> Casein/Tween 20 based blocking and blot incubation buffer. <b>We strongly recommend to use PVDF membranes for Immunoblot analysis.</b> <b>Immunocytochemistry:</b> Use at 1-10 µg/ml (Paraformaldehyd/Methanol fixation). <i>Included Positive Control:</i> Cell lysate from untreated Neuro 2A (See Protocols).
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Synthetic peptide conjugated to hemocyanin Epitope: Internal sequence that is identical in LC3A, LC3B and LC3C
Specificity:	Recognizes LC3A, LC3B and LC3C
Formulation:	PBS with 0.09% Sodium Azide, PEG, Sucrose and 50% Glycerol. State: Purified State: Liquid purified IgG fraction.
Concentration:	lot specific
Purification:	Purified from Serum-Free Cell Culture Supernatant by Subsequent Ultrafiltration and Size Exclusion Chromatography.
Conjugation:	Unconjugated
Storage:	Store lyophilized (preferably in a desiccator) at -20°C and reconstituted (aliquote and freeze in liquid nitrogen) at -80°C. Thaw aliquots at 37°C. Thawed aliquots may be stored at 4°C up to 3 months. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	microtubule associated protein 1 light chain 3 beta



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**Database Link:** [Entrez 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  $\mu$ l H<sub>2</sub>O. After complete solubilization add 200  $\mu$ l 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  $\mu$ l of positive control cell lysate correspond to ca. 20.000 cells.

Use 20  $\mu$ l/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.