

## Mouse Monoclonal Antibody to

# LC3 (microtubule-associated protein1 light chain 3) clone 5H3

**Order No.:** 0261-100/LC3-5H3  
**Size (µg)** 100  
**Lot No.:** 0261S



[www.nanotools.de](http://www.nanotools.de)

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04/140912F

Isotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope	Immunogen
IgG1	human, mouse, rat	WB	LC3I: 18 kDa LC3II: 16 kD	Neuro 2A	internal sequence that is identical in LC3A, LC3B and LC3C.	synthetic peptide conjugated to hemocyanin

### Background and Specificity:

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 N-terminus. Autophagic vacuoles have been also reported frequently in cardiomyopathies or muscle cells exposed to different experimental settings.

**NOTE: We strongly recommend to use PVDF membranes for immunoblot analysis.**

### Related Products

- mab to LC3**  
#0231-100/LC-3-5F10
- mab to LC3**  
#0260-100/LC3-2G6
- mab to Beclin**  
#0240-100/Beclin-12B4
- Alzheimer Disease**
- mab to βA4 (1-40), C-Terminus**  
#0060-100/bA4(40)-5C3
- mab to βA4 (1-42), C-Terminus**  
#0061-100/bA4(42)-8G7
- mab to βA4 (1-40/42), C-Terminus**  
#0062-100/bA4(40/42)-9F1
- mab to βA4 (1-43), C-Terminus**  
#0095-100/bA4(43)-6G12
- mab to βA4, N-Terminus**  
#0064-100/bA4N-19H5
- mab to βA4, N-Terminus**  
#0084-100/bA4N-19H11
- mab to βA4, N-Terminus**  
#0197-100/bA4N-11H3

For monoclonal antibodies against PKB/akt, and SAPK/jnk, please refer to our website at [www.nanotools.de](http://www.nanotools.de)

<b>Purification:</b>	The antibody was purified from serum-free cell culture supernatant by subsequent ultrafiltration and size exclusion chromatography.
<b>Formulation:</b>	liquid in PBS/0.09% Na-Azide/PEG and Sucrose/50% Glycerol (1 ml, c = 100 µg/ml)
<b>Reconstitution:</b>	
<b>Stability:</b>	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. Avoid repeated freeze / thaw cycles.
<b>Positive Control:</b>	#0911: Cell lysate from untreated Neuro 2A
<b>Immunoblotting:</b>	0.5 µg/ml for HRPO/ECL detection <b>Recommended blocking buffer:</b> Casein/Tween 20 based blocking and blot incubation buffer, e.g. nanoTools product #3031-500/CPPT or #3031-3000/CPPT.
<b>Immunoprecipitation:</b>	ND
<b>Immunocytochemistry:</b>	Use at 1- 10 µg/ml (paraformaldehyd/methanol fixation)
<b>ELISA:</b>	ND

**All products are supplied for research and investigational use only. Not for use in humans or laboratory animals.**