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nanoTools ANTIKOERPERTECHNIK

Mouse Monoclonal Antibody to

LC3
(microtubule-associated protein1 light chain 3B)

clone 2G6

Order No.: **0260-100/LC3-2G6**

Size (µg) 100

Lot No.: 0260S

05/190607F

Isotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope	Immunogen
IgG1	human, mouse, rat, monkey, hamster	WB, ICC	LC3-I: 18kDa LC3-II:16kDa	Neuro 2A	N-terminus of LC3-B	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 C-terminus. Autophagic vacuoles have been also reported frequently in cardiomyopathies or muscle cells exposed to different experimental settings.

Mab LC3-2G6 specifically recognizes both forms of endogenous LC3, the cytoplasmic LC3-I (18 kDa) as well

Purification: The antibody was purified from serum-free cell culture supernatant by subsequent ultrafiltration and size exclusion chromatography.

Formulation: liquid in PBS/0.09% Na-Azide/PEG and Sucrose/50% Glycerol (1 ml, c = 100 µg/ml)

Reconstitution:

Stability: Aliquote and store at -20°C up to 1 year

Positive Control: #0911: Cell lysate from untreated Neuro 2A

Immunoblotting: 0.5 µg/ml for HRPO/ECL detection
Recommended blocking buffer: Casein/Tween 20 based blocking and blot incubation buffer, e.g. nanoTools product #3031-500/CPPT or #3031-3000/CPPT.

Immunoprecipitation: ND

Immunocytochemistry: Use at 1- 10 µg/ml (paraformaldehyd/methanol fixation)

ELISA: ND

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

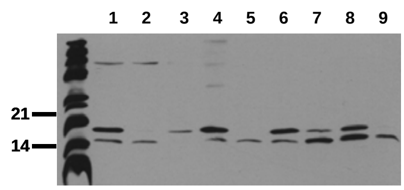
Related Products

mab to LC3
#0231-100/LC-3-5F10
mab to LC3
#0270-100/LC3-4G9
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



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 mab LC3 - 2G6 (0.5 µg/ 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