

 **My select** sampler set

Anti-LC3 mAb

CODE No.	M186-3MS
CLONALITY	Monoclonal
CLONE	8E10
ISOTYPE	Mouse IgG2a κ
QUANTITY	20 μ L, 1 mg/mL
SOURCE	Purified IgG from hybridoma supernatant
IMMUNOGEN	Human LC3 (MAP1LC3B), 1-120 aa (recombinant)
REACTIVITY	This clone reacts with LC3B and does not cross-react with LC3A, LC3C, GATE-16 and GABARAP
FORMULATION	1 mg/mL in PBS containing 50% Glycerol (pH 7.2). No preservative is contained.
STORAGE	This antibody solution is stable for one year from the date of purchase when stored at -20°C .

APPLICATIONS-CONFIRMED

<u>Western blotting</u>	1 μ g/mL
<u>Immunohistochemistry</u>	Not recommended
<u>Immunocytochemistry</u>	Not recommended

APPLICATION-REPORTED

<u>Immunoprecipitation</u>	Reference 1)
----------------------------	--------------

SPECIES CROSS REACTIVITY on WB

Species	Human	Mouse	Rat	Hamster
Cells	HeLa	NIH/3T3, MEF, Atg5 ^{-/-} MEF Brain	PC12	CHO
Reactivity	+	+	+	+

Entrez Gene ID 81631 (Human), 67443 (Mouse), 64862 (Rat)

REFERENCES

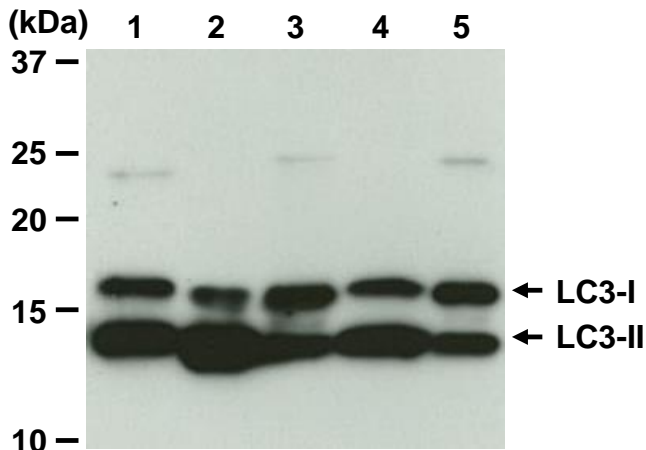
- 1) Meng, X. H., *et al.*, *Int. J. Biol. Sci.* **13**, 985-995 (2017)
- 2) Jia, W., *et al.*, *J. Immunol.* **186**, 5313-5322 (2011)
- 3) Tabata, K., *et al.*, *Mol. Biol. Cell* **21**, 4162-4172 (2010)
- 4) Mookerjee, S., *et al.*, *J. Neurosci.* **29**, 15134-15144 (2009)
- 5) Saitoh, T., *et al.*, *Nature* **456**, 264-268 (2008)
- 6) Kabeya, Y., *et al.*, *J. Cell Sci.* **117**, 2805-2812 (2004)
- 7) Mizushima, N., *et al.*, *Mol. Biol. Cell* **15**, 1101-1111 (2004)
- 8) Mizushima, N., *et al.*, *J. Cell Biol.* **152**, 657-668 (2001)
- 9) Schmitz, J., *et al.*, *Immunity* **23**, 479-490 (2005)

For more information, please visit our web site <https://ruo.mbl.co.jp/>.

SDS-PAGE & Western blotting

- 1) Wash 1×10^7 cells 3 times with PBS and suspends them in 1 mL of Laemmli's sample buffer, then sonicate briefly (up to 10 sec.).
- 2) Boil the samples for 3 min. and centrifuge. Load 10 μ L of the sample per lane in a 1-mm-thick SDS-polyacrylamide gel (15% acrylamide) for electrophoresis.
- 3) Blot the protein to a polyvinylidene difluoride (PVDF) membrane at 1 mA/cm² for 1 hr. in a semi-dry transfer system (Transfer Buffer: 25 mM Tris, 190 mM glycine, 20% methanol). See the manufacturer's manual for precise transfer procedure.
- 4) To reduce nonspecific binding, soak the membrane in 10% skimmed milk (in PBS, pH 7.2) overnight at 4°C.
- 5) Wash the membrane with PBS-T [0.05% Tween-20 in PBS] (5 min. x 3).
- 6) Incubate the membrane with primary antibody diluted with 1% skimmed milk (in PBS, pH 7.2) as suggested in the **APPLICATIONS** for 1 hr. at room temperature. (The concentration of antibody will depend on the conditions.)
- 7) Wash the membrane with PBS-T (5 min. x 3).
- 8) Incubate the membrane with 1:10,000 Anti-IgG (Mouse) pAb-HRP (MBL; code no. 330) diluted with 1% skimmed milk (in PBS, pH 7.2) for 1 hr. at room temperature.
- 9) Wash the membrane with PBS-T (5 min. x 3).
- 10) Wipe excess buffer on the membrane, and then incubate it with appropriate chemiluminescence reagent for 1 min. Remove extra reagent from the membrane by dabbing with paper towel, and seal it in plastic wrap.
- 11) Expose to an X-ray film in a dark room for 1 min. Develop the film as usual. The condition for exposure and development may vary.

(Positive controls for Western blotting; HeLa, NIH/3T3, PC12, CHO, mouse brain tissue, MEF and Atg5^{-/-} MEF)



Western blotting analysis of LC3

- Lane 1: HeLa
- Lane 2: NIH/3T3
- Lane 3: PC12
- Lane 4: CHO
- Lane 5: mouse brain tissue
- Lane 6: Atg5^{-/-} MEF
- Lane 7: MEF
- Lane 8: MEF (6 hr. treatment with 50 μ M Chloroquine)

Immunoblotted with M186-3

Atg5^{-/-} MEF was kindly provided by Dr. Mizushima. (Department of Physiology and Cell Biology, Tokyo Medical and Dental University, Tokyo)

