

MONOCLONAL ANTIBODY

For research use only. Not for clinical diagnosis.

Catalog No. CTB-LC3-1-50

Anti LC3 (Clone: LC3.No.6)

BACKGROUND

LC3B is one of the mammalian Atg8 homologs and widely used as an autophagosome marker. Immediately after synthesis, LC3 is processed by Atg4 and becomes LC3-I. Upon induction of autophagy, the C-terminal glycine of LC3-I is conjugated to phosphatidylethanolamine, resulting in formation of membrane-bound LC3-II. Most LC3-II is thought to be present on autophagosome membrane. The autophagosome subsequently fuses with a lysosome, where inside materials, including LC3-II, are degraded. The expression level of LC3-II generally correlates with the number of autophagosome.

LC3B は酵母 Atg8 の哺乳類ホモログのひとつで、オートファゴソームのマーカーとして利用されています。LC3 は合成された直後に Atg4 によって切断され LC3-I となります。オートファジーが誘導されると、LC3-I の C 末端グリシンにホスファチジルエタノールアミンが共有結合し、LC3-II となります。LC3-II は膜結合型であり、その多くはオートファゴソーム膜に存在すると考えられています。オートファゴソームはリソソームと融合することによってその内部が分解されるため、LC3-II 自身もオートファジーによって分解されます。一般に LC3-II の量はオートファゴソームの量とよく相関します。

Product type	Primary antibodies
Host	Mouse
Source	
Form	Liquid Protein G purified PBS (pH7.4) with 1% BSA and less than 0.1% NaN ₃ as a preservative.
Volume	500 µl
Concentration	0.1mg/ml
Specificity	LC3
Antigen	Human Recombinant LC3
Clone	LC3.No.6
Isotype	IgG2b

Application notes

WB

Recommended use

Recommended dilutions

Western blotting, 1/500 to 1/1,000

Predicted molecular weight: LC3-I is 18 kDa and LC3-II is 16 kDa

Optimal dilutions/concentrations should be determined by the end user.

Staining Pattern

Cross reactivity

Mouse, Human

Storage

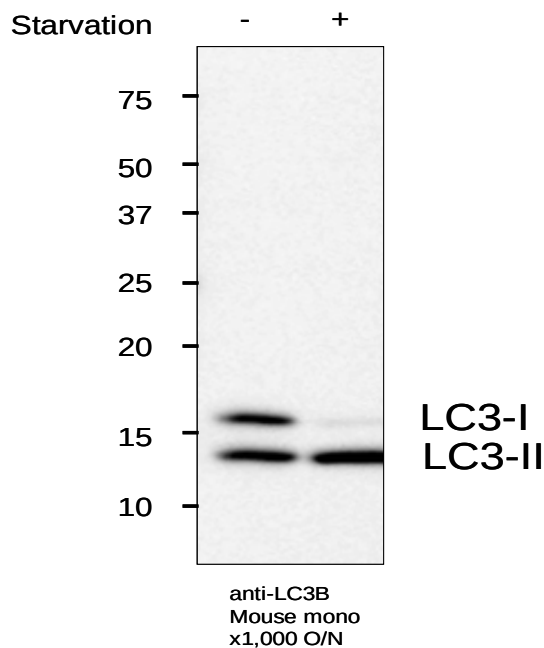
Store below -20°C (below -70°C for prolonged storage).

Aliquot to avoid cycles of freeze/thaw.



References

- 1) Kabeya, Y., Mizushima, N., Ueno, T., Yamamoto, A., Kirisako, T., Noda, T., Kominami, E., Ohsumi, Y. and Yoshimori, T. LC3, a mammalian homologue of yeast Apg8p, is localized in autophagosome membranes after processing EMBO J. 19, 5720-5728. (2000)
- 2) Mizushima, N., Yoshimori, T. How to interpret LC3 immunoblotting Autophagy 3:542-545 (2007)



MEF +/- Starvation 2 hr
SDS-PAGE(MEF lysate 15 ug/lane, 15% gel)
Transfer to PVDF membrane(semi-dry blotter, 100 mA/gel 1hr)
Immunoblot for LC3B
Expose ECL 5min

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COSMO BIO Co., LTD.
Inspiration for Life Science

TOYO 2CHOME, KOTO-KU, TOKYO, 135-0016, JAPAN

URL: <http://www.cosmobio.co.jp>

e-mail: export@cosmobio.co.jp

[Outside Japan] Phone : +81-3-5632-9617

[国内連絡先] Phone : +81-3-5632-9610

FAX : +81-3-5632-9618

FAX : +81-3-5632-9619