

**MONOCLONAL ANTIBODY**

*For research use only. Not for clinical diagnosis.*

**Catalog No.CTB-AT7-M01**

# Anti Atg7 (Clone: ATG7 · 2)

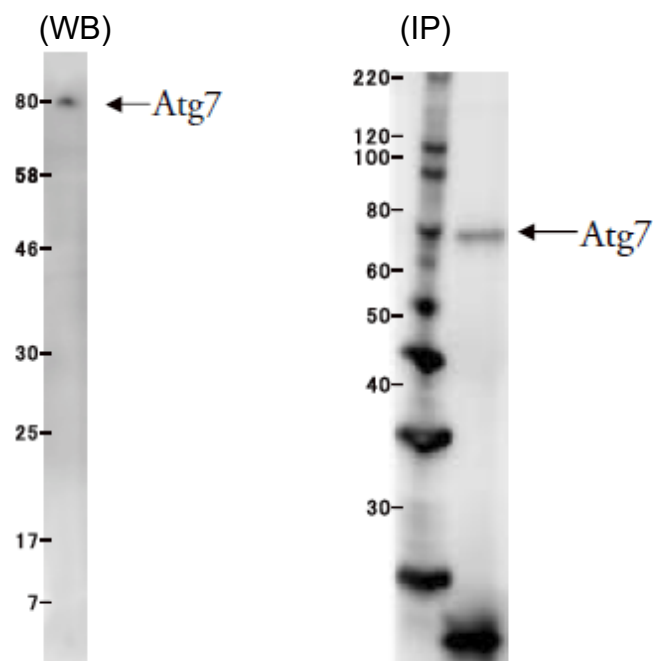
## BACKGROUND

Autophagy is an evolutionally conserved machinery, in which autophagosome fuses with lysosome and degrades bulk cytoplasmic contents<sup>1</sup>. Autophagy is involved in many physiological processes such as development, infection, cancer, and neurodegenerative diseases<sup>2</sup>. ATG (autophagy-related) genes were identified by genetic screening in yeast<sup>3</sup>. Atg7 acts as an E1-like enzyme in both Atg12 and Atg8 ubiquitin-like conjugation systems. Atg7 transfers Atg12 to an E2-like enzyme Atg10, and conjugates Atg12 to Atg5. In the other hand, Atg7 transfers Atg8 to another E2-like enzyme Atg3, and conjugates Atg8 to phosphatidylethanolamine<sup>4</sup>. Many of these ATG genes are conserved also in mammals. Atg7 deficient neonates die soon after birth as they cannot endure perineonatal starvation<sup>5</sup>. Conditional deletion of Atg7 in nerves system results in neurodegeneration with ubiquitin containing aggregates<sup>6</sup>.

<b>Product type</b>	Primary Antibodies
<b>Host</b>	Mouse
<b>Form</b>	Liquid
	Protein G Purified
	PBS (pH7.4) with 1% BSA and less than 0.1% NaN3 as preservative
<b>Volume</b>	500 $\mu$ l
<b>Concentration</b>	0.1mg/ml
<b>Genebank Info</b>	AAH00091.1 (Homo sapiens)
<b>Other Names</b>	GSA7; APG7L; APG7-LIKE; DKFZp434N0735; ATG7
<b>Antigen</b>	Recombinant Human Atg7
<b>Clone</b>	ATG7 · 2
<b>Cross reactivity</b>	HU
<b>Isotype</b>	IgG2b

<b>Application notes</b>	<ul style="list-style-type: none"> <li>• Western Blot Dilution range : X10-500</li> <li>• Immunoprecipitation Dilution range : X10</li> </ul>
--------------------------	---

※Optimum dilution rate should be determined by end user



Sample : Lysate of HeLa Cells

#### Storage

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

#### References

- 1) Klionsky and Emr, 2000, Science, 290, 1717-21
- 2) Mizushima et al., 2008, Nature, 451, 1069-75
- 3) Tsukada and Ohsumi, 1993, FEBS Lett, 333, 169-74
- 4) Mizushima et al., 1998, Nature, 395, 395-8
- 5) Komatsu et al., 2005, J Cell Biol, 169, 425-34
- 6) Komatsu et al., 2006, Nature, 441, 880-4

*For research use only. Not for clinical diagnosis.*



**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](mailto: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