



MONOCLONAL ANTIBODY

For research use only. Not for clinical diagnosis.

Catalog No.CTB-AT7-M01

Anti Atg7 (Clone: ATG7 · 2)

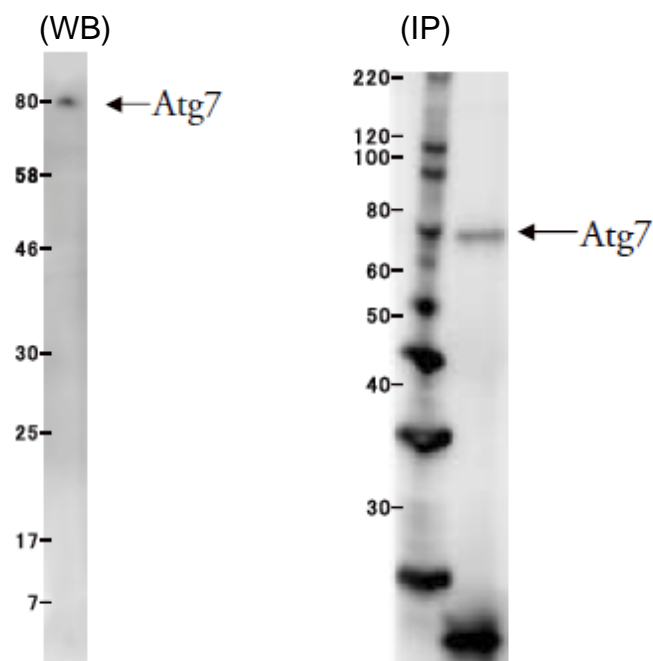
BACKGROUND

Autophagy is an evolutionally conserved machinery, in which autophagosome fuses with lysosome and degrades bulk cytoplasmic contents¹. Autophagy is involved in many physiological processes such as development, infection, cancer, and neurodegenerative diseases². ATG (autophagy-related) genes were identified by genetic screening in yeast³. 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 phosphatidylethanolamine⁴. Many of these ATG genes are conserved also in mammals. Atg7 deficient neonates die soon after birth as they cannot endure perineonatal starvation⁵. Conditional deletion of Atg7 in nerves system results in neurodegeneration with ubiquitin containing aggregates⁶.

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

Application notes	<ul style="list-style-type: none">• Western Blot Dilution range : X10-500• Immunoprecipitation Dilution range : X10
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※Optimum dilution rate should be determined by end user



Sample : Lysate of Hera 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

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