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## Autophagy Antibody Sampler Kit

1 Kit (7 x 20 microliters)

**For Research Use Only. Not for Use in Diagnostic Procedures.**

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Beclin-1 (D40C5) Rabbit mAb	3495	20 µl	60 kDa	Rabbit IgG
LC3A/B (D3U4C) XP <sup>®</sup> Rabbit mAb	12741	20 µl	14, 16 kDa	Rabbit IgG
Atg5 (D5F5U) Rabbit mAb	12994	20 µl	55 kDa	Rabbit IgG
Atg12 (D88H11) Rabbit mAb	4180	20 µl	16, 55 kDa	Rabbit IgG
Atg16L1 (D6D5) Rabbit mAb	8089	20 µl	66, 68 kDa	Rabbit IgG
Atg7 (D12B11) Rabbit mAb	8558	20 µl	78 kDa	Rabbit IgG
Atg3 Antibody	3415	20 µl	40 kDa	Rabbit
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit [cellsignal.com](http://cellsignal.com) for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

### Description

The Autophagy Antibody Sampler Kit provides an economical means to investigate the molecular machinery of autophagy within the cell. The kit contains enough primary and secondary antibodies to perform two Western blot experiments.

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

### Background

Autophagy is a catabolic process for the autophagosomic-lysosomal degradation of bulk cytoplasmic contents (1,2). Autophagy is generally activated by conditions of nutrient deprivation but has also been associated with a number of physiological processes including development, differentiation, neurodegeneration, infection, and cancer (3). The molecular machinery of autophagy was largely discovered in yeast and referred to as autophagy-related (*Atg*) genes. Formation of the autophagosome involves a ubiquitin-like conjugation system in which Atg12 is covalently bound to Atg5 and targeted to autophagosome vesicles (4-6). This conjugation reaction is mediated by the ubiquitin E1-like enzyme Atg7 and the E2-like enzyme Atg10 (7,8).

### Background References

1. Reggiori, F. and Klionsky, D.J. (2002) *Eukaryot Cell* 1, 11-21.
2. Codogno, P. and Meijer, A.J. (2005) *Cell Death Differ* 12 Suppl 2, 1509-18.
3. Levine, B. and Yuan, J. (2005) *J Clin Invest* 115, 2679-88.
4. Mizushima, N. et al. (1998) *J Biol Chem* 273, 33889-92.
5. Mizushima, N. et al. (1998) *Nature* 395, 395-8.
6. Suzuki, K. et al. (2001) *EMBO J* 20, 5971-81.
7. Tanida, I. et al. (1999) *Mol Biol Cell* 10, 1367-79.
8. Shintani, T. et al. (1999) *EMBO J* 18, 5234-41.

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