

DESCRIPTION

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| Species Reactivity | Human/Mouse |
| Specificity | Detects human ATG7 in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human ATG3, 4A, 4B, 5, 10, 12, or 16L1 is observed. |
| Source | Monoclonal Mouse IgG ₁ Clone # 683906 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | <i>E. coli</i> -derived recombinant human ATG7 Asn387-Gln570 Accession # O95352 |
| Conjugate | Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm |
| Formulation | Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

| | Recommended Concentration | Sample |
|---|----------------------------------|---|
| Intracellular Staining by Flow Cytometry | 0.25-1 µg/10 ⁶ cells | HeLa human cervical epithelial carcinoma cell line fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005) |

PREPARATION AND STORAGE

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| Shipping | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| Stability & Storage | Protect from light. Do not freeze. <ul style="list-style-type: none"> 12 months from date of receipt, 2 to 8 °C as supplied. |

BACKGROUND

ATG7, also known as APG7, is a 78 kDa cytosolic ubiquitin-E1-like enzyme that plays a key role in the autophagic pathway of intracellular bulk degradation. It is required for the conjugation of ATG5 to ATG12, the lipidation of ATG8, and subsequent autophagosome formation. ATG7 is required for mitochondrial removal during erythropoiesis and for the maintenance of axonal homeostasis. Alternate splicing of human ATG7 generates an isoform that lacks 31 aa at the C-terminus, a region that is required for ATG8 lipidation. Human ATG7 shares 93% aa sequence identity with mouse and rat ATG7.

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