



## Rabbit antibody to ATG7: whole serum

<b>Catalogue No.:</b>	R-161-100
<b>Description:</b>	<p><b>FUNCTION:</b> Functions as an E1 enzyme essential for multisubstrates such as GABARAPL1 and ATG12. Forms intermediate conjugates with GABARAPL1 (GABARAPL2, GABARAP or MAP1ALC3). Formation of the final GABARAPL1-PE conjugate is essential for autophagy.</p> <p><b>SUBUNIT:</b> Homodimer (By similarity). Interacts with ATG3 and ATG12. The complex, composed of ATG3 and ATG7, plays a role in the conjugation of ATG12 to ATG5.</p> <p><b>SUBCELLULAR LOCATION:</b> Cytoplasm (Probable). <b>ALTERNATIVE PRODUCTS:</b> 2 named isoforms produced by alternative splicing. <b>TISSUE SPECIFICITY:</b> Widely expressed, especially in kidney, liver, lymph nodes and bone marrow. <b>DOMAIN:</b> The C-terminal part of the protein is essential for the dimerization and interaction with ATG3 and ATG12. <b>SIMILARITY:</b> Belongs to the ATG7 family. In yeast, ATG7 appears to be required for fusion of peroxisomal and vacuolar membranes.</p>
<b>Batch No.:</b>	See product label
<b>Unit size:</b>	100 uL
<b>Antigen:</b>	A synthetic peptide (DSTRDRTLDDQC) corresponding to the C-terminal of human APG7 protein conjugated to blue carrier protein has been used as the immunogen. The peptide is homologous with the corresponding sequence derived from APG7 protein in mouse, rat, <i>S. cerevisiae</i> , <i>Macaca mulatta</i> (monkey) and <i>Canis familiaris</i> (dog).
<b>Other Names:</b>	Autophagy-related protein 7; Ubiquitin-activating enzyme E1-like protein; hAGP7; APG7-like; ATG7; APG7L
<b>Accession:</b>	ATG7_HUMAN ATG7_MOUSE ATG7_RAT ATG7_Saccharomyces cerevisiae ATG7_Macaca mulatta ATG7_Canis familiaris
<b>Produced in:</b>	Rabbit
<b>Purity:</b>	Whole serum
<b>Applications:</b>	Non-reduced western blot : 1:100; IF: acetone or 3.7% PFA fixed cells (HJ Lim et al 2013); 1:100; Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
<b>Specificity:</b>	IF, WB and ELISA confirmed the specificity for ATG7.
<b>Cross-reactivity:</b>	Human, rat. Other species not yet tested.
<b>Form:</b>	Lyophilised
<b>Reconstitution:</b>	Reconstitute in 100 uL of sterile water. Centrifuge to remove any insoluble material.
<b>Storage:</b>	Store lyophilized antibody at 2-8C. After reconstitution keep aliquots at -20C for a higher stability, and at 2-8C with an appropriate antibacterial agent. Glycerol (1:1) may be added for an additional stability. Avoid repetitive freeze/thaw cycles.
<b>Expiry Date:</b>	

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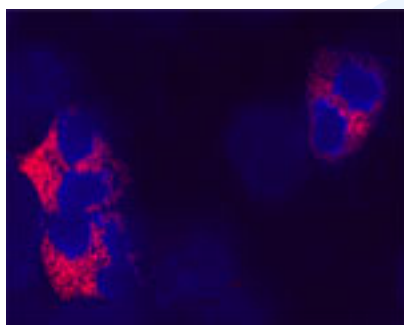
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12 months after purchase

- Specific References:** Chiu-Wei Chen, et al (2012) Inhibition of autophagy as a therapeutic strategy of iron-induced brain injury after hemorrhage *Autophagy*, 8(10):1510.
- Chien W.S. et al (2011) Suppression of autophagy in rat liver at late stage of polymicrobial sepsis *Shock*. 2011 Jan 14
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- Ryningen A et al (2012) Inhibition of Mammalian target of rapamycin in human acute myeloid leukemia cells has diverse effects that depend on the environmental in vitro stress. *Bone Marrow Res*. 2012;2012:329061.
- Oh HA et al (2013) Uncovering a role for endocannabinoid signaling in autophagy in preimplantation mouse embryos. *Mol Hum Reprod*. 2013 Feb;19(2):93-101.

**References:**

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Confocal microscopy on cytospin-isolated human blood cells. Neutrophils seem to be stained using Rabbit antibody to ATG7: whole serum (R-161-100) at a dilution of 1: 100, incubated for 1 h at room temperature. The cells stained for ATG7 appear in red. The cells were counter stained with Hoechst Dye (blue colour). Here, the merged picture is presented. Observations: No staining was observed using the Pre-immunisation serum. No staining was observed in HL60 cell line.

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