



## Mouse monoclonal antibody to human ATG12 [2H8]: IgG

<b>Catalogue No.:</b>	M-879-100
<b>Description:</b>	Autophagy is a process of bulk protein degradation in which cytoplasmic components, including organelles, are enclosed in double-membrane structures called autophagosomes and delivered to lysosomes or vacuoles for degradation. ATG12 is the human homolog of a yeast protein involved in autophagy. ATG12 is conjugated to ATG5. The ATG12-ATG5 conjugate has an apparent molecular mass of 65 kDa. The C-terminal glycine of ATG12 is conjugated to a central lysine (lys130) of ATG5. Studies showed that over expression of ATG3 facilitated formation of the ATG12-ATG5 conjugate, suggesting that ATG3 cross-talks with the ATG12 conjugation system. ATG12 is ubiquitously expressed.
<b>Batch No.:</b>	See product label
<b>Unit size:</b>	100 ug
<b>Antigen:</b>	Full recombinant human ATG12, isoform 2, (1-74) with a GST tag.
<b>Clone:</b>	2H8
<b>Other Names:</b>	Autophagy-related protein 12; ATG12; APG12; APG12L; APG12-like;
<b>Accession:</b>	ATG12_HUMAN
<b>Produced in:</b>	Mouse
<b>Purity:</b>	Protein G purified immunoglobulin
<b>Applications:</b>	This antibody is recommended for WB, and sandwich ELISA. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
<b>Specificity:</b>	Specificity has been confirmed by WB and direct ELISA against the antigen.
<b>Cross-reactivity:</b>	Human. Other species have not been tested.
<b>Form:</b>	Lyophilised from PBS pH 7.2
<b>Reconstitution:</b>	Reconstitute in 100 uL of sterile water. Centrifuge to remove any insoluble material.
<b>Storage:</b>	After reconstitution keep aliquots at -20C for higher stability or at 2-8C with an appropriate antibacterial agent. Glycerol (1:1) may be added for additional stability. Avoid repetitive freeze/thaw cycles.
<b>Expiry Date:</b>	12 months after purchase
<b>Specific References:</b>	De la Mata M. et al (2015) Pharmacological Chaperones and Coenzyme Q10 Treatment Improves Mutant $\beta$ -Glucocerebrosidase Activity and Mitochondrial Function in Neuronopathic Forms of Gaucher Disease. Sci Rep. 2015 Jun 5;5:10903.  Garrido-Maraver J. et al (2015) Critical role of AMP-activated protein kinase in the balance between mitophagy and mitochondrial biogenesis in MELAS disease. Biochim Biophys Acta. 2015 Nov;1852(11):2535-53.  Garrido-Maraver J. et al (2012) Screening of effective pharmacological treatments for MELAS syndrome using yeasts, fibroblasts and cybrids models of the disease.

FOR RESEARCH USE ONLY



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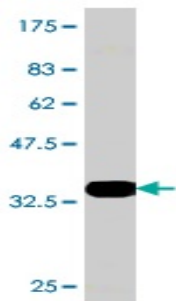
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De la Mata M. et al (2012) Recovery of MERRF fibroblasts and cybrids pathophysiology by Coenzyme Q<sub>10</sub>; Neurotherapeutics. 2012 Apr;9(2):446-63.

Bullon P et al (2012) Autophagy in periodontitis patients and gingival fibroblasts: unraveling the link between chronic diseases and inflammation. BMC Med. 2012 Oct 17;10:122.

Cotán D et al (2011) Secondary coenzyme Q10 deficiency triggers mitochondria degradation by mitophagy in MELAS fibroblasts. FASEB J. 2011 Aug;25(8):2669-87.

Rodriguez-Hernandez A et al (2009) Coenzyme Q deficiency triggers mitochondria degradation by mitophagy. Autophagy. 2009 Jan;5(1):19-32.



Western blot detection of GST tagged recombinant human ATG12. Note the GST tag alone is 26 kDa.

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