

# ATG12 polyclonal antibody

Catalog # PAB11358

Size 500 ug

## Applications

### Western Blot (Recombinant protein)

Immunoblot of APG12 fusion protein.

ATG12 polyclonal antibody (Cat # PAB11358) generated by immunization with recombinant yeast ATG12 was tested by immunoblot against yeast lysates expressing the ATG12-GFP fusion protein and other UBL fusion proteins. All UBLs possess limited homology to Ubiquitin and to each other, therefore it is important to know the degree of reactivity of each antibody against each UBL.

Panel A shows total protein staining using ponceau.

Panel B shows positions of free GFP or GFP containing recombinant proteins present in each lysate preparation after reaction with a 1:1,000 dilution of anti-GFP followed by reaction with a 1:15,000 dilution of HRP Donkey-a-Goat IgG MX.

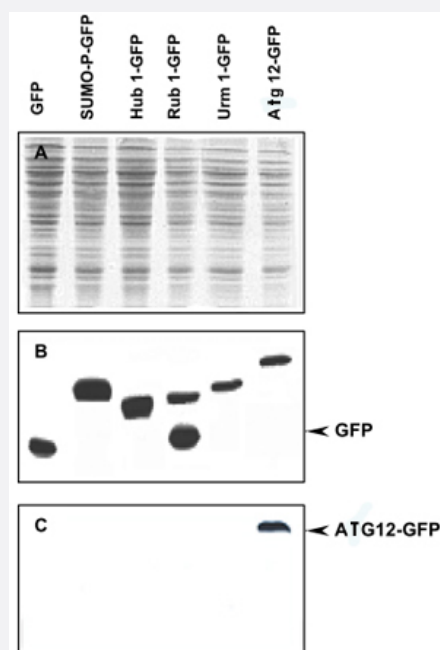
Panel C shows specific reaction with ATG12 using a 1:2,000 dilution of ATG12 polyclonal antibody (Cat # PAB11358) followed by reaction with a 1:15,000 dilution of HRP Goat-a-Rabbit IgG MX.

All primary antibodies were diluted in TTBS buffer supplemented with 5% non-fat milk and incubated with the membranes overnight at 4°C.

Yeast lysate proteins were separated by SDS-PAGE using a 15% gel. This data indicates that anti-ATG12 is highly specific and does not cross react with other UBLs.

A chemiluminescence system was used for signal detection (Roche) .

Data contributed by M. Malakhov, Lifesensors Inc., personal communication.



## Specification

### Product Description

Rabbit polyclonal antibody raised against recombinant ATG12.

### Immunogen

Recombinant protein corresponding to *Saccharomyces cerevisiae* ATG12.

Host	Rabbit
Reactivity	Yeast
Form	Lyophilized
Quality Control Testing	Antibody Reactive Against Recombinant Protein.
Recommend Usage	ELISA (1:1000-1:5000) Western Blot (1:2000) The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from 20 mM potassium phosphate buffer, 150 mM NaCl, pH 7.2 (0.01% sodium azide)
Storage Instruction	Store at 4°C. For long term storage store at -20°C. Aliquot after reconstitution to avoid repeated freezing and thawing.
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

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- Enzyme-linked Immunoabsorbent Assay

## Gene Info — ATG12

Entrez GeneID

[852518](#)

Gene Name	ATG12
Gene Alias	APG12
Gene Description	Atg12p
Gene Ontology	<a href="#">Hyperlink</a>
Gene Summary	conjugated via an isopeptide bond to a lysine residue of Atg5p by the E1 enzyme
Other Designations	Ubiquitin-like modifier, conjugated via an isopeptide bond to a lysine residue of Atg5p by the E1 enzyme, Atg7p, and the E2 enzyme, Atg10p, a step that is essential for autophagy

## Publication Reference

- [Mouse Apg16L, a novel WD-repeat protein, targets to the autophagic isolation membrane with the Apg12-Apg5 conjugate.](#)

Mizushima N, Kuma A, Kobayashi Y, Yamamoto A, Matsubae M, Takao T, Natsume T, Ohsumi Y, Yoshimori T.

Journal of Cell Science 2003 May; 116(Pt 9):1679.

- [Formation of the approximately 350-kDa Apg12-Apg5.Apg16 multimeric complex, mediated by Apg16 oligomerization, is essential for autophagy in yeast.](#)

Kuma A, Mizushima N, Ishihara N, Ohsumi Y.

The Journal of Biological Chemistry 2002 May; 277(21):18619.

Application: WB-Ce, Yesat, S. cerevisiae SEY6210 strains

- [The pre-autophagosomal structure organized by concerted functions of APG genes is essential for autophagosome formation.](#)

Suzuki K, Kirisako T, Kamada Y, Mizushima N, Noda T, Ohsumi Y.

The EMBO Journal 2001 Nov; 20(21):5971.

Application: WB-Tr, Yeast, Yeast cells