10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ATG12 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM1816a

Specification

ATG12 Antibody - Product Information

Application	**WB,E**
Primary Accession	O94817
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG2b, Igk**

ATG12 Antibody - Additional Information

Gene ID 9140

Other Names
Ubiquitin-like protein ATG12, Autophagy-related protein 12, APG12-like, ATG12, APG12, APG12L

Target/Specificity
APG12L recombinant protein is used to produce this monoclonal antibody.

Dilution
WB~~1:4000

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ATG12 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ATG12 Antibody - Protein Information

Name ATG12

Synonyms APG12, APG12L

Function Ubiquitin-like protein involved in autophagy vesicles formation. Conjugation with ATG5 through a ubiquitin-like conjugating system involving also ATG7 as an E1-like activating enzyme and ATG10 as an E2-like conjugating enzyme, is essential for its function. The ATG12-ATG5 conjugate acts as an E3-like enzyme which is required for lipidation of ATG8 family proteins and their association to the vesicle membranes.

Cellular Location
Cytoplasm. Preautophagosomal structure membrane; Peripheral membrane protein. Note=TECPR1 recruits the ATG12- ATG5 conjugate to the autolysosomal membrane

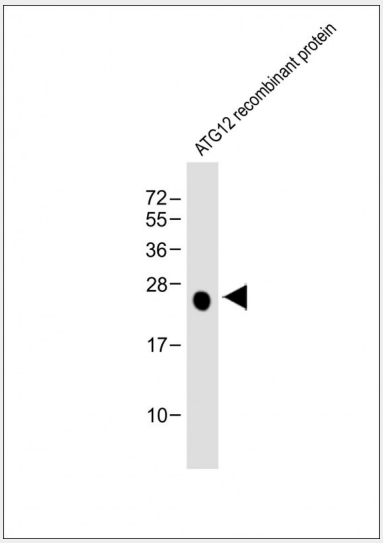
Tissue Location
Ubiquitous..

ATG12 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ATG12 Antibody - Images



Anti-APG12 at 1:4000 dilution + ATG12 recombinant protein Lysates/proteins at 20ng per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 26 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

ATG12 Antibody - Background

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 (Mizushima et al., 1998 [PubMed 9852036]).

ATG12 Antibody - References

Control of basal autophagy by calpain1 mediated cleavage of ATG5. Xia HG, et al. Autophagy, 2010 Jan. PMID 19901552.

Frameshift mutations of autophagy-related genes ATG2B, ATG5, ATG9B and ATG12 in gastric and colorectal cancers with microsatellite instability. Kang MR, et al. J Pathol, 2009 Apr. PMID 19197948.
Regulation of autophagy by the p300 acetyltransferase. Lee IH, et al. J Biol Chem, 2009 Mar 6. PMID 19124466.
Mitochondrial DNA deletions and chloramphenicol treatment stimulate the autophagic transcript ATG12. Prigione A, et al. Autophagy, 2007 Jul-Aug. PMID 17457038.
Large-scale mapping of human protein-protein interactions by mass spectrometry. Ewing RM, et al. Mol Syst Biol, 2007. PMID 17353931.

ATG12 Antibody - Citations

- Activation of autophagy in mesenchymal stem cells provides tumor stromal support.