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Datasheet for 600-401-Y76

ATG12 Antibody

Overview

Description:	Anti-ATG12 (RABBIT) Antibody - 600-401-Y76
Item No.:	600-401-Y76
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background:	Autophagy, the process of bulk degradation of cellular proteins through an autophagosomic-lysosomal pathway is important for normal growth control and may be defective in tumor cells. It is involved in the preservation of cellular nutrients under starvation conditions as well as the normal turnover of cytosolic components. This process is negatively regulated by TOR (Target of rapamycin) through phosphorylation of autophagy protein APG1. ATG12, another member of the autophagy protein family, forms a conjugate with ATG5; this conjugate has a ubiquitin-protein ligase (E3)-like activity for protein lipidation in autophagy. This conjugate also associates with innate immune response proteins such as RIG-I and VISA (also known as IPS-1), inhibiting type I interferon production and permitting viral replication in host cells. ATG12 has also been shown to interact with ATG10 in human embryonic kidney cells in the presence of ATG7. At least two isoforms of ATG12 are known to exist.
Synonyms:	ATG12 Antibody, APG12, FBR93, APG12L, HAPG12, APG12, Ubiquitin-like protein ATG12, Autophagy-related protein 12, APG12-like
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	ATG12
Reactivity:	Human, Mouse, Rat

Immunogen Type:	Conjugated Peptide
Immunogen:	Anti-ATG12 antibody was prepared from whole rabbit serum produced by repeated immunizations with a 15 amino acid synthetic peptide from near the internal region of human ATG12.
Purity/Specificity:	Anti-ATG12 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. Cross reactivity with ATG12 from other sources has not been determined.
Relevant Links:	• UniProtKB - O94817 • GeneID - 9140 • NCBI - EAW48955

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-ATG12 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 15 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5000 - 1:10000
IF:	20 µg/mL
IHC:	2.5 µg/mL
WB:	0.5 - 1 µg/mL

Formulation

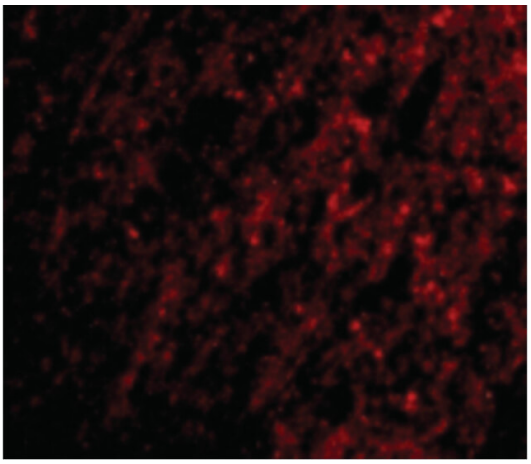
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

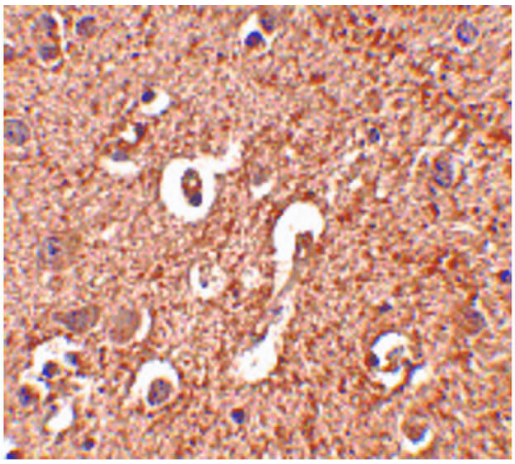
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

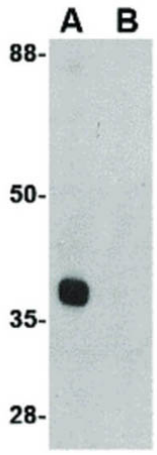
Images



Immunofluorescence Microscopy
Immunofluorescence Microscopy of ATG12 antibody. Tissue: Human brain cells. Fixation: 0.5% PFA. Antigen retrieval: not required. Primary antibody: ATG12 antibody at 20 µg/mL for 1 h at RT. Secondary antibody: Fluorescein rabbit secondary antibody at 1:10,000 for 45 min at RT. Staining: ATG12 as a red fluorescent signal.



Immunohistochemistry
Immunohistochemistry of ATG12 antibody. Tissue: Human brain tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: ATG12 antibody at 2.5 µg/mL for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: ATG12 is nuclear and occasionally cytoplasmic. Staining: ATG12 as precipitated red signal with hematoxylin purple nuclear counterstain.



Western Blot

Western Blot of ATG12 antibody. Lane A: Mouse heart tissue lysate in the absence of blocking buffer at 1 µg/mL. Lane B: Mouse heart tissue lysate in the presence of blocking buffer at 1 µg/mL. Load: 35 µg per lane. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 15.1 kDa, ~38 kDa for ATG12.

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