

Rabbit ATG5 Polyclonal Antibody | anti-ATG5 antibody

ATG5 Antibody

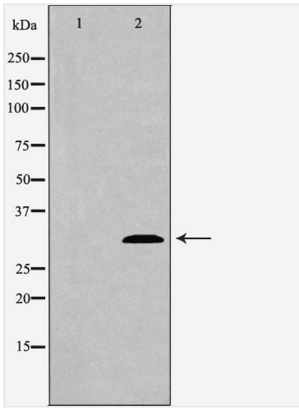
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA325823	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

ATG5; Polyclonal Antibody; ATG5 Antibody; APG 5; APG 5L; APG5; APG5 autophagy 5 like; APG5 like; APG5-like; APG5L; Apoptosis specific protein; Apoptosis-specific protein; ASP; ATG 5; Atg5; ATG5 autophagy related 5 homolog; ATG5_HUMAN; Autophagy protein 5; Autophagy related 5; hAPG5; Homolog of S Cerevisiae autophagy 5; OTTHUMP00000040507; anti-ATG5 antibody

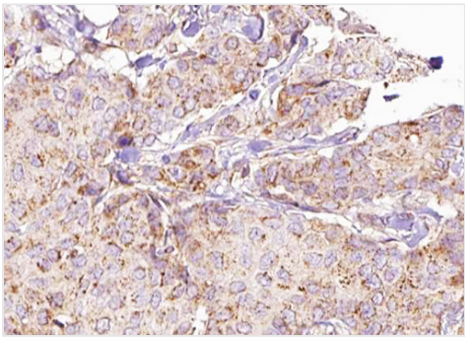
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	ATG5 antibody detects endogenous levels of total ATG5
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	275
Applicable Applications for anti-ATG5 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ATG5
Subcellular Location	Cytoplasm. Preautophagosomal Structure Membrane. Colocalizes with nonmuscle actin. The conjugate detaches from the membrane immediately before or after autophagosome formation is completed (By similarity). Localizes also to discrete punctae along the ciliary axoneme and to the base of the ciliary axoneme.
Tissue Specificity	Ubiquitous. The mRNA is present at similar levels in viable and apoptotic cells, whereas the protein is dramatically highly expressed in apoptotic cells.
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Pig (100%), Zebrafish (93%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (93%), Xenopus (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



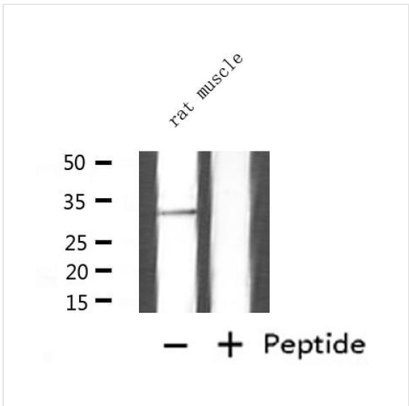
WB (Western Blot)

Western blot analysis of extracts of mouse spleen tissue, using ATG5 antibody. The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)

AAA325823 at 1/100 staining Human breast cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

Western blot analysis of extracts from rat muscle, using ATG5 Antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-ATG5 antibody	Description: Autophagy is a catabolic process for the autophagosomic-lysosomal degradation of bulk cytoplasmic contents (1, 2). Autophagy is generally activated by conditions of nutrient deprivation but has also been associated with a number of physiological processes including development, differentiation, neurodegeneration, infection, and cancer (3). The molecular machinery of autophagy was largely discovered in yeast and referred to as autophagy-related (Atg) genes. Formation of the autophagosome involves a ubiquitin-like conjugation system in which Atg12 is covalently bound to Atg5 and targeted to autophagosome vesicles (4-6). This conjugation reaction is mediated by the ubiquitin E1-like enzyme Atg7 and the E2-like enzyme Atg10 (7, 8). Function: Involved in autophagic vesicle formation. Conjugation with ATG12, through a ubiquitin-like conjugating system involving 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. Involved in mitochondrial quality control after oxidative damage, and in subsequent cellular longevity. Plays a critical role in multiple aspects of lymphocyte development and is essential for both B and T lymphocyte survival and proliferation. Required for optimal processing and presentation of antigens for MHC II. Involved in the maintenance of axon morphology and membrane structures, as well as in normal adipocyte differentiation. Promotes primary ciliogenesis through removal of OFD1 from centriolar satellites and degradation of IFT20 via the autophagic pathway. Subunit Structure: Forms a conjugate with ATG12 (PubMed:12207896, PubMed:11825910, PubMed:17709747, PubMed:26812546). The ATG5-ATG12 conjugate forms a complex with several units of ATG16L. Interacts with TECPR1; the interaction is direct and does not take place when ATG16L is associated with the ATG5-ATG12 conjugate (PubMed:21575909, PubMed:22342342). Interacts with DHX58/RIG-1, IFIH1/MDA5 and MAVS/IPS-1 in monomeric form as well as in ATG12-ATG5 conjugate form. The interaction with MAVS is further enhanced upon vesicular stomatitis virus (VSV) infection (PubMed:17709747). Interacts with ATG3 (PubMed:12207896, PubMed:11825910). Interacts with ATG7 and ATG10 (By similarity). Interacts with FADD (PubMed:15778222). Post-translational Modifications: Conjugated to ATG12; which is essential for autophagy, but is not required for association with isolation membrane. Acetylated by EP300. Similarity: Belongs to the ATG5 family.
References	Li M, Li J, Zeng R, Yang J, Liu J, Zhang Z, Song X, Yao Z, Ma C, Li W, Wang K, Wei L; Journal: J Virol. Respiratory Syncytial Virus Replication Is Promoted by Autophagy-Mediated Inhibition of Apoptosis.

NCBI AND UNIPROT INFORMATION

NCBI GI #	554790362
NCBI GeneID	9474
NCBI Accession #	NP_001273035.1
NCBI GenBank Nucleotide #	NM_001286106.1
UniProt Accession #	Q9H1Y0; O60875; Q5JVR2; Q68DI4; Q9H2B8; Q9HCZ7
Molecular Weight	Observed: 32 kDa Predicted: 33 kDa
NCBI Official Full Name	autophagy protein 5 isoform a
NCBI Official Synonym Full Names	autophagy related 5
NCBI Official Symbol	ATG5
NCBI Official Synonym Symbols	ASP; APG5; APG5L; hAPG5; SCAR25; APG5-LIKE
NCBI Protein Information	autophagy protein 5
UniProt Protein Name	Autophagy protein 5
UniProt Gene Name	ATG5
UniProt Synonym Gene Names	APG5L; ASP

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

