

Rabbit ATG7 Polyclonal Antibody | anti-ATG7 antibody

ATG7 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA325914	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

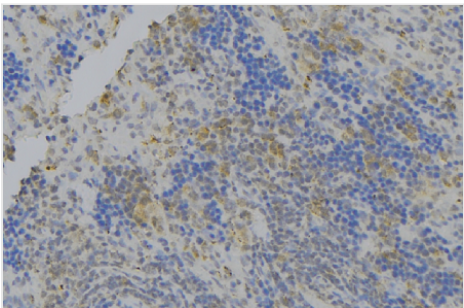
PRODUCT SYNONYMS

ATG7; Polyclonal Antibody; ATG7 Antibody; 1810013K23Rik; Apg 7; APG7 autophagy 7 like; APG7 autophagy 7-like (S. cerevisiae); APG7 like; APG7; S. cerevisiae; homolog of; APG7-like; APG7L; ATG 7; ATG12-activating enzyme E1 ATG7; ATG7 autophagy related 7 homolog (S. cerevisiae); ATG7 autophagy related 7 homolog; ATG7_HUMAN; Atg7l; Autophagy 7; Autophagy related protein 7; Autophagy-related 7 (yeast); Autophagy-related protein 7; DKFZp434N0735; GSA 7; GSA7; hAGP7; Ubiquitin activating enzyme E1 like protein; Ubiquitin-activating enzyme E1-like protein; Ubiquitin-like modifier-activating enzyme ATG7; anti-ATG7 antibody

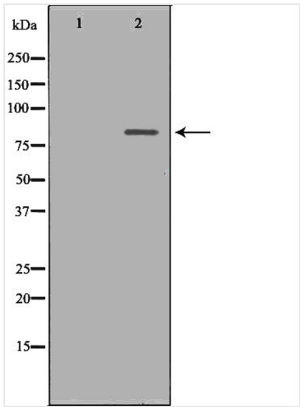
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	ATG7 antibody detects endogenous levels of total ATG7
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	676
Applicable Applications for anti-ATG7 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ATG7
Subcellular Location	Cytoplasm. Preautophagosomal Structure. Localizes also to discrete punctae along the ciliary axoneme and to the base of the ciliary axoneme.
Tissue Specificity	Widely expressed, especially in kidney, liver, lymph nodes and bone marrow.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken
Similarity	Pig (90%), Bovine (100%), Horse (90%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (80%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)
AAA325914 at 1/100 staining Human lymph node 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 293T lysate using ATG7 antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-ATG7 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: E1-like activating enzyme involved in the 2 ubiquitin-like systems required for cytoplasm to vacuole transport (Cvt) and autophagy. Activates ATG12 for its conjugation with ATG5 as well as the ATG8 family proteins for their conjugation with phosphatidylethanolamine. Both systems are needed for the ATG8 association to Cvt vesicles and autophagosomes membranes. Required for autophagic death induced by caspase-8 inhibition. Required for mitophagy which contributes to regulate mitochondrial quantity and quality by eliminating the mitochondria to a basal level to fulfill cellular energy requirements and preventing excess ROS production. Modulates p53/TP53 activity to regulate cell cycle and survival during metabolic stress. Plays also a key role in the maintenance of axonal homeostasis, the prevention of axonal degeneration, the maintenance of hematopoietic stem cells, the formation of Paneth cell granules, as well as in adipose differentiation. Subunit Structure: Homodimer. Interacts with ATG3 and ATG12. The complex, composed of ATG3 and ATG7, plays a role in the conjugation of ATG12 to ATG5. Forms intermediate conjugates with ATG8-like proteins such as GABARAP, GABARAPL1, GABARAPL2 or MAP1LC3A. Interacts with EP300 acetyltransferase. Interacts with FOXO1. Post-translational Modifications: Acetylated by EP300. Similarity: The C-terminal part of the protein is essential for the dimerization and interaction with ATG3 and ATG12. The N-terminal FAP motif (residues 15 to 17) is essential for the formation of the ATG89-PE and ATG5-ATG12 conjugates. Belongs to the ATG7 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 #	222144227
NCBI GeneID	10533
NCBI Accession #	NP_001129503.2
NCBI GenBank Nucleotide #	NM_001136031.2
UniProt Accession #	O95352; Q7L8L0; Q9BWP2; Q9UFH4; B4E170; E9PB95
Molecular Weight	Observed: 78 kDa Predicted: 78 kDa

NCBI Official Full Name	ubiquitin-like modifier-activating enzyme ATG7 isoform b
NCBI Official Synonym Full Names	autophagy related 7
NCBI Official Symbol	ATG7
NCBI Official Synonym Symbols	GSA7; APG7L; APG7-LIKE
NCBI Protein Information	ubiquitin-like modifier-activating enzyme ATG7
UniProt Protein Name	Ubiquitin-like modifier-activating enzyme ATG7
UniProt Gene Name	ATG7
UniProt Synonym Gene Names	APG7L; APG7-like; hAGP7

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.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/atg7-antibody-immunohistochemistry-western-blot-elisa/325914>