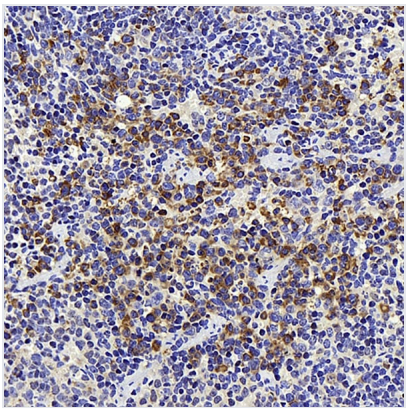
ATG7 Antibody – Rabbit Polyclonal

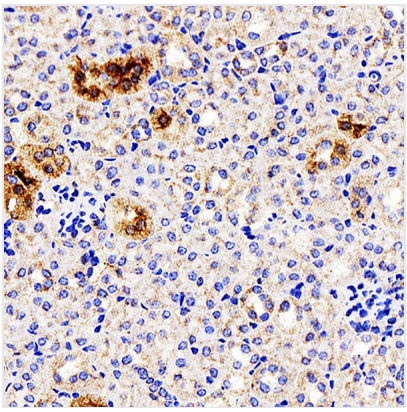
PRODUCT OVERVIEW

Product Name	ATG7, Polyclonal Antibody
Full Product Name	ATG7 Polyclonal Antibody
Product Gene Name	anti-ATG7 antibody
Product Synonym Names	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; ATG7 autophagy related 7 homolog (S. cerevisiae); ATG7 autophagy related 7 homolog; ATG7; Atg7l; Autophagy 7; S. cerevisiae; homolog of; 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
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Mouse
Form/Format	PBS with 0.02% sodium azide, 100 mug/ml BSA and 50% glycerol.
Purity/Purification	Affinity Purification
Concentration	0.6 mg/mL (lot specific)
Preparation and Storage	Store at -20 degree C. Avoid freeze/thaw cycles.
Molecular Weight	77,520 Da
3D Structure	ModBase 3D Structure for Q9D906
Immunogen	KLH conjugated synthetic peptide corresponding to mouse ATG7
Conjugation	Unconjugated
Product Categories/Family for anti-ATG7 antibody	Cancer; Cell Biology; Cardiovascular; Metabolism; Signal transduction
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-ATG7 antibody	Immunohistochemistry (IHC)
Application Notes for anti-ATG7 antibody	IHC: 1:600-1:1200
Related Product Information for anti-ATG7 antibody	ATG7 (Autophagy Related 7) is a Protein Coding gene. Among its related pathways are Autophagy Pathway and Innate Immune System. GO annotations related to this gene include protein homodimerization activity and ubiquitin activating enzyme activity. This gene encodes an E1-like activating enzyme that is essential for autophagy and cytoplasmic to vacuole transport. The encoded protein is also thought to modulate p53-dependent cell cycle pathways during prolonged metabolic stress. It has been associated with multiple functions, including axon membrane trafficking, axonal homeostasis, mitophagy, adipose differentiation, and hematopoietic stem cell maintenance. Alternative splicing results in multiple transcript variants.
Other Notes	Small volumes of anti-ATG7 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for ATG7 purchase	MBS2556305 is an antibody targeting ATG7. Also known as ATG7 Polyclonal Antibody. Reactive in Mouse. Host: Rabbit.



Immunohistochemistry (IHC) of anti-ATG7 antibody
Immunohistochemistry analysis of paraffin-embedded mouse spleen using ATG7 Polyclonal Antibody at dilution of 1:300.



Immunohistochemistry (IHC) of anti-ATG7 antibody
Immunohistochemistry analysis of paraffin-embedded mouse kidney using ATG7 Polyclonal Antibody at dilution of 1:300.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ATG7. It may not necessarily be applicable to this product.

NCBI GI #	358679369
NCBI GeneID	74244
NCBI Accession #	NP_001240646.1
UniProt Primary Accession #	Q9D906
UniProt Secondary Accession #	Q3TCD9; Q8K4Q5
UniProt Related Accession #	Q9D906
GenBank Nucleotide #	NM_001253717.1
NCBI Official Full Name	ubiquitin-like modifier-activating enzyme ATG7 isoform 1
NCBI Official Synonym Full Names	autophagy related 7
NCBI Official Symbol	Atg7
NCBI Official Synonym Symbols	Agp7; Apg7l; Atg7l; Gm21553; 1810013K23Rik
UniProt Protein Name	Ubiquitin-like modifier-activating enzyme ATG7
UniProt Synonym Protein Names	ATG12-activating enzyme E1 ATG7; Autophagy-related protein 7; APG7-like; mAGP7; Ubiquitin-activating enzyme E1-like protein
Protein Family	Ubiquitin-like modifier-activating enzyme
UniProt Gene Name	Atg7
UniProt Synonym Gene Names	Apg7l; APG7-like; mAGP7
NCBI Protein Information	ubiquitin-like modifier-activating enzyme ATG7
NCBI Summary for ATG7	This gene encodes an E1-like activating enzyme that is essential for autophagy and cytoplasmic to vacuole transport. The encoded protein is also thought to modulate p53-dependent cell cycle pathways during prolonged metabolic stress. It has been associated with multiple functions, including axon membrane trafficking, axonal homeostasis, mitophagy, adipose differentiation, and hematopoietic stem cell maintenance. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]

UniProt Comments for ATG7	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. Plays a role in regulating the liver clock and glucose metabolism by mediating the autophagic degradation of CRY1 (clock repressor) in a time-dependent manner (PubMed:29937374).
Research Articles on ATG7	**1.** Atg7(f/f) Tyr-Cre mice, in which autophagy-related 7 (Atg7) is conditionally deleted under the control of the tyrosinase promoter, are a model for accumulations of the autophagy adapter and substrate sequestosome-1/p62 in both neuronal and neuroepithelial cells.
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