ATG14 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ATG14, Polyclonal Antibody
Full Product Name	ATG14 Antibody, FITC conjugated
Product Gene Name	anti-ATG14 antibody
Product Synonym Names	Beclin 1-associated autophagy-related key regulator1; Autophagy-related protein 14-like protein; ATG14
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Liquid
Purity/Purification	>95%, Protein G purified
Preparation and Storage	Shipped at 4 degree C. Upon delivery aliquot and store at -20 degree C or -80 degree C. Avoid repeated freeze.
Matching Pairs	Unconjugated Antibody: ATG14 (MBS7050457) FITC Conjugated Antibody: ATG14 (MBS7050459)
Molecular Weight	42,434 Da
OMIM	AB020638 mRNA
3D Structure	ModBase 3D Structure for Q6ZNE5
Immunogen	Recombinant Human Beclin 1-associated autophagy-related key regulator protein (1-492AA)
Preservative	0.03% Proclin 300
Constituents	50% Glycerol, 0.01M PBS, pH 7.4
Conjugation	FITC
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-ATG14 antibody	ELISA (EIA)
Related Product Information for anti-ATG14 antibody	Required for both basal and inducible autophagy. Determines the localization of the autophagy-specific PI3-kinase complex PI3KC3-C1 (PubMed: 18843052, PubMed: 19050071). Plays a role in autophagosome formation and MAP1LC3/LC3 conjugation to phosphatidylethanolamine (PubMed: 19270696, PubMed: 20713597). Promotes BECN1 translocation from the trans-Golgi network to autophagosomes (PubMed: 20713597). Enhances PIK3C3 activity in a BECN1-dependent manner. Essential for the autophagy-dependent phosphorylation of BECN1 (PubMed: 23878393). Stimulates the phosphorylation of BECN1, but suppresses the phosphorylation PIK3C3 by AMPK (PubMed: 23878393). Binds to STX17-SNAP29 binary t-SNARE complex on autophagosomes and primes it for VAMP8 interaction to promote autophagosome-endolysosome fusion (PubMed: 25686604). Modulates the hepatic lipid metabolism (By similarity).
Other Notes	Small volumes of anti-ATG14 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 ATG14 purchase	MBS7050459 is an antibody targeting ATG14. Also known as ATG14 Antibody, FITC conjugated. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ATG14. It may not necessarily be applicable to this product.

NCBI GI #	50540545
NCBI GeneID	22863
NCBI Accession #	NP_055739.2
UniProt Primary Accession #	Q6ZNE5
UniProt Secondary Accession #	O94920; Q32MK7; Q32MK8; A6NJE4; A8K9U5; B7ZWP5
UniProt Related Accession #	Q6ZNE5
GenBank Nucleotide #	NM_014924.4
NCBI Official Full Name	beclin 1-associated autophagy-related key regulator
NCBI Official Synonym Full Names	autophagy related 14
NCBI Official Symbol	ATG14
NCBI Official Synonym Symbols	ATG14L; BARKOR; KIAA0831
UniProt Protein Name	Beclin 1-associated autophagy-related key regulator
UniProt Synonym Protein Names	Autophagy-related protein 14-like protein
Protein Family	Autophagy-related protein
UniProt Gene Name	ATG14
UniProt Synonym Gene Names	Atg14L
UniProt Entry Name	BAKOR_HUMAN
NCBI Protein Information	beclin 1-associated autophagy-related key regulator
UniProt Comments for ATG14	Barkor: Required for both basal and inducible autophagy. Plays a role in autophagosome formation and MAP1LC3/LC3 conjugation to phosphatidylethanolamine. Promotes BECN1 translocation from the trans-Golgi network to autophagosomes. Enhances PIK3C3 activity in a BECN1-dependent manner. Forms a complex with BECN1, PIK3C3 and PIK3R4, but not with UVRAG, nor with KIAA0226/Rubicon. UVRAG and ATG14/Barkor form mutually exclusive complexes with BECN1 through direct competition. The complex containing ATG14 up-regulates autophagy, while the one containing Rubicon down-regulates autophagy. Interacts with PIK3CB. Belongs to the Barkor family. 2 isoforms of the human protein are produced by alternative splicing. Protein type: Autophagy Chromosomal Location of Human Ortholog: 14q22.3 Cellular Component: autophagic vacuole; axoneme; cytoplasm; cytosol; endoplasmic reticulum membrane; nucleus; pre-autophagosomal structure membrane Molecular Function: protein binding Biological Process: autophagic vacuole docking; autophagic vacuole formation; cellular response to glucose starvation; cellular response to starvation; endosome to lysosome transport; macroautophagy; negative regulation of protein amino acid phosphorylation; positive regulation of phosphoinositide 3-kinase activity; positive regulation of protein amino acid phosphorylation; regulation of protein amino acid phosphorylation
Research Articles on ATG14	**1.** These results define a key molecular event for the starvation-induced activation of the ATG14-containing PtdIns3K complex by ULK1.

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