ATG4D Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	ATG4D, Polyclonal Antibody
Full Product Name	ATG4D Antibody; HRP conjugated
Product Gene Name	anti-ATG4D antibody
Product Synonym Names	Cysteine protease ATG4D; AUT-like 4 cysteine endopeptidase; Autophagin-4; Autophagy-related cysteine endopeptidase 4; Autophagy-related protein 4 homolog D; ATG4D; APG4D; AUTL4
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.
Matching Pairs	Unconjugated Antibody: ATG4D (MBS7003312) HRP Conjugated Antibody: ATG4D (MBS7001700)
Molecular Weight	16,008 Da
OMIM	611340
3D Structure	ModBase 3D Structure for Q86TL0
Immunogen	Recombinant human Cysteine protease ATG4D protein
Conjugation	HRP
Storage Buffer	Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, PH 7.4
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-ATG4D antibody	ELISA (EIA)
Related Product Information for anti-ATG4D antibody	Cysteine protease ATG4D: Cysteine protease required for the cytoplasm to vacuole transport (Cvt) and autophagy. Cleaves the C-terminal amino acid of ATG8 family proteins MAP1LC3 and GABARAPL2, to reveal a C-terminal glycine. Exposure of the glycine at the C-terminus is essential for ATG8 proteins conjugation to phosphatidylethanolamine (PE) and insertion to membranes, which is necessary for autophagy. Has also an activity of delipidating enzyme for the PE-conjugated forms.
Other Notes	Small volumes of anti-ATG4D 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 ATG4D purchase	MBS7001700 is an antibody targeting ATG4D. Also known as ATG4D Antibody; HRP conjugated. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ATG4D. It may not necessarily be applicable to this product.

NCBI GI #	528078306
NCBI GeneID	84971
NCBI Accession #	NP_001268433.1
UniProt Primary Accession #	Q86TL0
UniProt Secondary Accession #	Q969K0
UniProt Related Accession #	Q86TL0
GenBank Nucleotide #	NM_001281504.1
NCBI Official Full Name	cysteine protease ATG4D isoform 2
NCBI Official Synonym Full Names	autophagy related 4D cysteine peptidase
NCBI Official Symbol	ATG4D
NCBI Official Synonym Symbols	APG4D; AUTL4; APG4-D
UniProt Protein Name	Cysteine protease ATG4D
UniProt Synonym Protein Names	AUT-like 4 cysteine endopeptidase; Autophagin-4; Autophagy-related cysteine endopeptidase 4; Autophagy-related protein 4 homolog D
Protein Family	Cysteine protease
UniProt Gene Name	ATG4D
UniProt Synonym Gene Names	APG4D; AUTL4
UniProt Entry Name	ATG4D_HUMAN
NCBI Protein Information	cysteine protease ATG4D
NCBI Summary for ATG4D	Autophagy is the process by which endogenous proteins and damaged organelles are destroyed intracellularly. Autophagy is postulated to be essential for cell homeostasis and cell remodeling during differentiation, metamorphosis, non-apoptotic cell death, and aging. Reduced levels of autophagy have been described in some malignant tumors, and a role for autophagy in controlling the unregulated cell growth linked to cancer has been proposed. This gene belongs to the autophagy-related protein 4 (Atg4) family of C54 endopeptidases. Members of this family encode proteins that play a role in the biogenesis of autophagosomes, which sequester the cytosol and organelles for degradation by lysosomes. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2013]
UniProt Comments for ATG4D	ATG4D: Cysteine protease required for autophagy, which cleaves the C-terminal part of either MAP1LC3, GABARAPL2 or GABARAP, allowing the liberation of form I. A subpopulation of form I is subsequently converted to a smaller form (form II). Form II, with a revealed C-terminal glycine, is considered to be the phosphatidylethanolamine (PE)-conjugated form, and has the capacity for the binding to autophagosomes. Belongs to the peptidase C54 family. Protein type: EC 3.4.22.-; Ubiquitin conjugating system; Autophagy; Protease Chromosomal Location of Human Ortholog: 19p13.2 Cellular Component: cytoplasm; cytosol; mitochondrial matrix Molecular Function: cysteine-type endopeptidase activity Biological Process: apoptosis; autophagic vacuole formation; C-terminal protein lipidation; mitochondrion degradation; protein delipidation; protein processing; protein targeting to membrane
Research Articles on ATG4D	**1.** The actions of ATG4 family members (particularly ATG4B) are required for the control of autophagosome fusion with late, degradative compartments in differentiating human erythroblasts.

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