Cysteine Protease ATG4D (ATG4D) Mouse Recombinant Protein

PRODUCT OVERVIEW

Product Name	Cysteine protease ATG4D (Atg4d), Recombinant Protein
Full Product Name	Recombinant Mouse Cysteine protease ATG4D (Atg4d)
Product Gene Name	Atg4d recombinant protein
Product Synonym Gene Name	Atg4d
Sequence	MNSVSPAAAQ YRSGSSEDAR RADCRRPRGQ TRIPDPSNLG PSGSGVAALG SSGTDPAEPD EVDKFKAKFL TAWNNVKYGW AVKSRTSFSK ISTVHLCGRC YHFEGEGDIQ RFQRDFVSRL WLTYRRDFPP LAGGSLTSDC GWGCMLRSGQ MMLAQGLLLH FLPRDWRWVE GTGLASSEMP GPASPSRCRG PGRRGPPRWT QGALEMEQDR WHRRIVSWFA DHPRAPFGLH RLVELGRSSG KKAGDWYGPS VVAHILRKAV ESCSEVSRLV VYVSQDCTVY KADVARLLSW PDPTAEWKSV VILVPVRLGG ETLNPVYVPC VKELLRSELC LGIMGGKPRH SLYFIGYQDD FLLYLDPHYC QPTVDVSQPS FPLESFHCTS PRKMAFAKMD PSCTVGFYAG NRKEFETLCS ELMRILSSSS VTERYPMFTV AEGHAQDHSL DALCTQLSQP TLRLPCTGRL LKAKRPSSED FVFL
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	52,910 Da
Sequence Positions	1-474, full length protein
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for Q8BGV9
Species	Mouse
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for Atg4d recombinant protein	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 encodes a member of the autophagin protein family. The encoded protein is also designated as a member of the C-54 family of cysteine proteases.
Other Notes	Small volumes of Atg4d recombinant protein 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	MBS1307106 is a recombinant protein targeting Atg4d. Also known as Recombinant Mouse Cysteine protease ATG4D (Atg4d). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for Atg4d. It may not necessarily be applicable to this product.

NCBI GI #	29135261
NCBI GeneID	235040
NCBI Accession #	NP_705811.8
UniProt Primary Accession #	Q8BGV9
UniProt Secondary Accession #	Q8C4N9; Q8K0Q2
UniProt Related Accession #	Q8BGV9
GenBank Nucleotide #	NM_153583.10
NCBI Official Full Name	cysteine protease ATG4D
NCBI Official Synonym Full Names	autophagy related 4D, cysteine peptidase
NCBI Official Symbol	Atg4d
NCBI Official Synonym Symbols	Apg4d; Autl4; APG4-D; Atg4dl; 9830134P12Rik
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
NCBI Protein Information	cysteine protease ATG4D
UniProt Comments for Atg4d	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.
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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