

Product datasheet

Recombinant Human APG5L/ATG5 protein ab103787

1 Image

Description

Product name	Recombinant Human APG5L/ATG5 protein	
Purity	> 85 % SDS-PAGE. ab103787 was purified by using anion-exchange chromatography (DEAE sepharose resin) and gel-filtration chromatography (Sephacryl S-200) with 20mM Tris pH 7.5, 2mM EDTA.	
Expression system	Escherichia coli	
Accession	Q9H1Y0	
Protein length	Full length protein	
Animal free	No	
Nature	Recombinant	
Species	Human	
Sequence	<p>MGSSHHHHHSSGLVPRGSHMTDDKDVL RDVWVFGRIPTCFTLYQDEITER EAEPYLLLP RVSYLTLVTDKVKKHFQKVMRQEDISEWF YEGTPLKWH YIGLLFDLLASSSALPWNITVHFKSFPEKDLLHCPSKDAI EAHFMSCMK EADALKHKSQVINEMQKKD HKQLWMGLQNDRFDQFWAI NRKLMEYP AEEN GFRYIPFRYQTTTERPFIQK LFRPVAADGQLHTLGDLLKEV CPSAIDPE DGEKKNQVMIHGIEP MLETPLQWLSEHLSYPDNFLHIS IIPQ PTD</p>	
Predicted molecular weight	35 kDa including tags	
Amino acids	1 to 275	
Tags	His tag N-Terminus	

Specifications

Our [Abpromise guarantee](#) covers the use of **ab103787** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Mass Spectrometry SDS-PAGE
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Mass spectrometry MALDI-TOF

Form Liquid

Preparation and Storage

Stability and Storage Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.

pH: 8.00

Constituents: 0.0154% DTT, 0.316% Tris HCl, 40% Glycerol (glycerin, glycerine), 1.16% Sodium chloride

General Info

Function Involved in autophagic vesicle formation. Conjugation with ATG12, through a ubiquitin-like conjugating system involving ATG7 as an E1-like activating enzyme and ATG10 as an E2-like conjugating enzyme, is essential for its function. The ATG12-ATG5 conjugate acts as an E3-like enzyme which is required for lipidation of ATG8 family proteins and their association to the vesicle membranes. Involved in mitochondrial quality control after oxidative damage, and in subsequent cellular longevity. The ATG12-ATG5 conjugate also negatively regulates the innate antiviral immune response by blocking the type I IFN production pathway through direct association with RARRES3 and MAVS. Also plays a role in translation or delivery of incoming viral RNA to the translation apparatus. Plays a critical role in multiple aspects of lymphocyte development and is essential for both B and T lymphocyte survival and proliferation. Required for optimal processing and presentation of antigens for MHC II. Involved in the maintenance of axon morphology and membrane structures, as well as in normal adipocyte differentiation. Promotes primary ciliogenesis through removal of OFD1 from centriolar satellites and degradation of IFT20 via the autophagic pathway.

May play an important role in the apoptotic process, possibly within the modified cytoskeleton. Its expression is a relatively late event in the apoptotic process, occurring downstream of caspase activity. Plays a crucial role in IFN-gamma-induced autophagic cell death by interacting with FADD.

Tissue specificity Ubiquitous. The mRNA is present at similar levels in viable and apoptotic cells, whereas the protein is dramatically highly expressed in apoptotic cells.

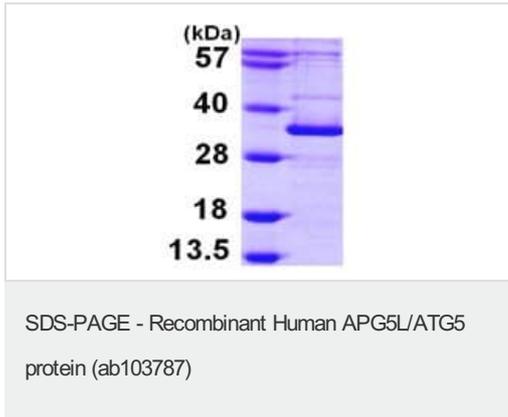
Sequence similarities Belongs to the ATG5 family.

Post-translational modifications Conjugated to ATG12; which is essential for autophagy, but is not required for association with isolation membrane.

Acetylated by EP300.

Cellular localization Cytoplasm. Preautophagosomal structure membrane. Colocalizes with nonmuscle actin. The conjugate detaches from the membrane immediately before or after autophagosome formation is completed (By similarity). Localizes also to discrete punctae along the ciliary axoneme and to the base of the ciliary axoneme.

Images



15% SDS-PAGE analysis of 3µg ab103787.

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