Datasheet for ABIN388522

anti-ATG7 antibody (AA 494-523)

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Overview

Quantity:	400 µL
Target:	ATG7
Binding Specificity:	AA 494-523
Reactivity:	Human, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ATG7 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	This ATG7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 494-523 amino acids from human ATG7.
Clone:	RB7472
Isotype:	Ig Fraction
Predicted Reactivity:	Rat
Purification:	This antibody is purified through a protein A column, followed by peptide affinity purification.

Target Details

Target:	ATG7
Alternative Name:	ATG7 (ATG7 Products)

Target Details

Background:	Macroautophagy is the major inducible pathway for the general turnover of cytoplasmic constituents in eukaryotic cells, it is also responsible for the degradation of active cytoplasmic enzymes and organelles during nutrient starvation. Macroautophagy involves the formation of double-membrane bound autophagosomes which enclose the cytoplasmic constituent targeted for degradation in a membrane bound structure, which then fuse with the lysosome (or vacuole) releasing a single-membrane bound autophagic bodies which are then degraded within the lysosome (or vacuole). APG7 functions as an E1 enzyme essential for multisubstrates such as GABARAPL1 and ATG12. APG3L is an E2-like conjugating enzyme facilitating covalent binding of APG8 (MAP1LC3) to phosphatidylethanolamine (PE). APG7 (an E1-like enzyme) facilitates this reaction by forming an E1-E2 complex with APG3. Formation of the PE conjugate is essential for autophagy.
Molecular Weight:	77960
Gene ID:	10533
NCBI Accession:	NP_001129503, NP_001138384, NP_006386
UniProt:	O95352
Pathways:	Response to Water Deprivation, Autophagy

Application Details

Application Notes:	WB: 1:1000. IHC-P: 1:25
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	Purified polyclonal antibody supplied in PBS with 0.09 % (W/V) sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Maintain refrigerated at 2-8 °C for up to 6 months. For long term storage store at -20 °C in small aliquots to prevent freeze-thaw cycles.
Expiry Date:	6 months

Publications

Product cited in:

Li, Zhou, Yang, Li, Zhang, Zheng: "Curcumin induces apoptotic cell death and protective autophagy in human gastric cancer cells." in: **Oncology reports**, Vol. 37, Issue 6, pp. 3459-3466, (2018) (PubMed).

Oikonomou, Moretti, Renga, Galosi, Borghi, Pariano, Puccetti, Palmerini, Amico, Carotti, Prezioso, Spolzino, Finocchi, Rossi, Velardi, Aversa, Napolioni, Romani: "Noncanonical Fungal Autophagy Inhibits Inflammation in Response to IFN-γ via DAPK1." in: **Cell host & microbe**, Vol. 20, Issue 6, pp. 744-757, (2017) (PubMed).

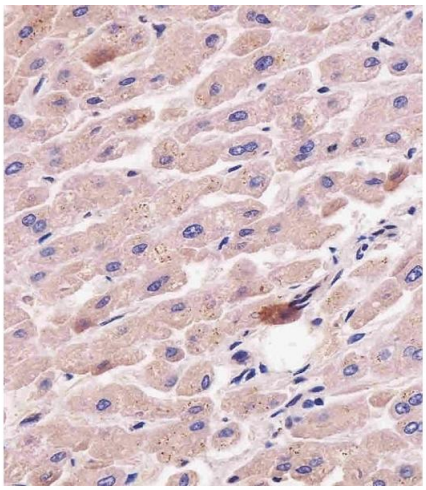
Gao, Li, Ding, Qi, Yang: "Cepharanthine Induces Autophagy, Apoptosis and Cell Cycle Arrest in Breast Cancer Cells." in: **Cellular physiology and biochemistry : international journal of experimental cellular physiology, biochemistry, and pharmacology**, Vol. 41, Issue 4, pp. 1633-1648, (2017) (PubMed).

Laggner, Pollreisz, Schmidinger, Schmidt-Erfurth, Chen: "Autophagy mediates cell cycle response by regulating nucleocytoplasmic transport of PAX6 in limbal stem cells under ultraviolet-A stress." in: **PLoS ONE**, Vol. 12, Issue 7, pp. e0180868, (2017) (PubMed).

Okamoto, Sakimoto, Imai, Senoo, Shidoji: "Induction of an incomplete autophagic response by cancer-preventive geranylgeranoic acid (GGA) in a human hepatoma-derived cell line." in: **The Biochemical journal**, Vol. 440, Issue 1, pp. 63-71, (2011) (PubMed).

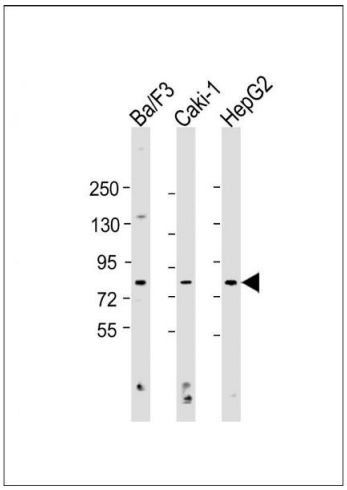
There are more publications referencing this product on: Product page

Images



Immunohistochemistry (Paraffin-embedded Sections)

Image 1. C staining G7L in human liver tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3 % BSA for 0. 5 hour at room temperature, antigen retrieval was by heat mediation with a citrate buffer (pH 6). Samples were incubated with primary antibody (1/25) for 1 hours at 37 °C. A undiluted biotinylated goat polyvalent antibody was used as the



secondary antibody.

Western Blotting

Image 2. All lanes : Anti-G7L Antibody at 1:1000 dilution Lane 1: Ba/F3 whole cell lysate Lane 2: Caki-1 whole cell lysate Lane 3: HepG2 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 78 kDa Blocking/Dilution buffer: 5 % NFDM/TBST.