Datasheet for ABIN1882158

anti-ATG4A antibody (AA 82-111)

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Overview

Quantity:	400 µL
Target:	ATG4A
Binding Specificity:	AA 82-111
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ATG4A antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	This ATG4A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 82-111 amino acids from human ATG4A.
Clone:	RB7553
Isotype:	Ig Fraction
Purification:	This antibody is purified through a protein A column, followed by peptide affinity purification.

Target Details

Target:	ATG4A
Alternative Name:	ATG4A (ATG4A Products)
Background:	Macroautophagy is the major inducible pathway for the general turnover of cytoplasmic

Target Details

	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). APG4A is a 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. Preferred substrate is GABARAPL2 followed by MAP1LC3A and GABARAP.
Molecular Weight:	45378
NCBI Accession:	NP_443168, NP_840054
UniProt:	Q8WYN0
Pathways:	Autophagy

Application Details

Application Notes:	WB: 1:1000. IHC-P: 1:50~100
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
Expiry Date:	6 months

Publications

Product cited in:	Guo, Zhou, Gao, Zhang, Wei, Hong, Chu, Duan, Zhang, Xu: "MicroRNA-144-3p inhibits autophagy

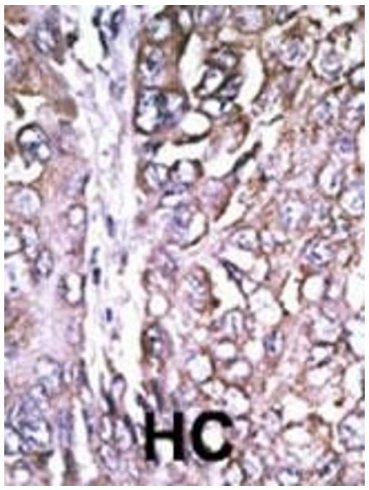
Publications

activation and enhances Bacillus Calmette-Guérin infection by targeting ATG4a in RAW264.7 macrophage cells." in: **PLoS ONE**, Vol. 12, Issue 6, pp. e0179772, (2017) (PubMed).

Li, Hou, Wang, Chen, Shao, Yin: "Kinetics comparisons of mammalian Atg4 homologues indicate selective preferences toward diverse Atg8 substrates." in: **The Journal of biological chemistry**, Vol. 286, Issue 9, pp. 7327-38, (2011) (PubMed).

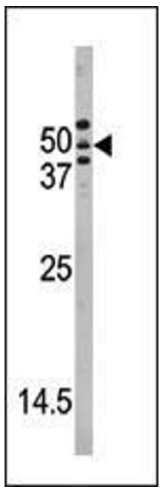
Shintani, Klionsky: "Autophagy in health and disease: a double-edged sword." in: **Science (New York, N.Y.)**, Vol. 306, Issue 5698, pp. 990-5, (2004) (PubMed).

Images



Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by AEC staining. This data demonstrates the use of this antibody for immunohistochemistry, clinical relevance has not been evaluated. BC = breast carcinoma, HC = hepatocarcinoma.



Western Blotting

Image 2. Western blot analysis of anti-G4A Pab 1808b in HepG2 cell line lysate. G4A(arrow) was detected using the purified Pab.