Datasheet for ABIN388518

anti-ATG5 antibody (N-Term)

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Overview

Quantity:	400 µL
Target:	ATG5
Binding Specificity:	AA 1-30, N-Term
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ATG5 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p))

Product Details

Immunogen:	This ATG5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of human ATG5.
Clone:	RB7466
Isotype:	Ig Fraction
Predicted Reactivity:	Zf, B, M, Pig, Rat
Purification:	This antibody is purified through a protein A column, followed by peptide affinity purification.

Target Details

Target:	ATG5

Target Details

Alternative Name:	ATG5 (ATG5 Products)
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). APG5, required for autophagy, conjugates to ATG12 and associates with an isolation membrane to form a cup-shaped isolation membrane and autophagosome. The conjugate detaches from the membrane immediately before or after autophagosome formation is completed. APG5 may also 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.
Molecular Weight:	32447
Gene ID:	9474
NCBI Accession:	NP_004840
UniProt:	Q9H1Y0
Pathways:	Activation of Innate immune Response, Production of Molecular Mediator of Immune Response , Autophagy

Application Details

Application Notes:	IF: 1:200. WB: 1:1000. IHC-P-Leica: 1:500
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

Handling

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:

Schwab, Sison, Meade, Broniowska, Corbett, Ebert: "Decreased Sirtuin Deacetylase Activity in LRRK2 G2019S iPSC-Derived Dopaminergic Neurons." in: **Stem cell reports**, Vol. 9, Issue 6, pp. 1839-1852, (2018) (PubMed).

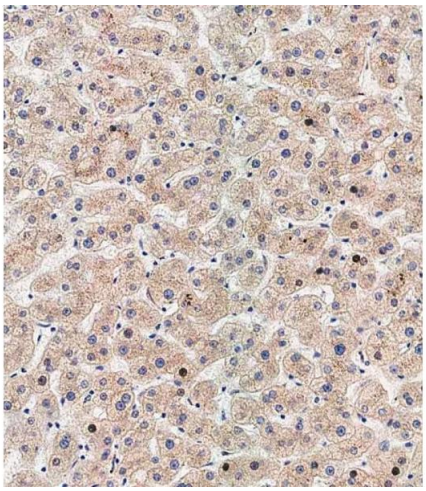
Takumida, Takumida, Katagiri, Anniko: "Localization of sirtuins (SIRT1-7) in the aged mouse inner ear." in: **Acta oto-laryngologica**, pp. 1-12, (2015) (PubMed).

He, Hu, Shi, Weidert, Lu, Xu, Huang, Kelley, Xie: "Activation of the aryl hydrocarbon receptor sensitizes mice to nonalcoholic steatohepatitis by deactivating mitochondrial sirtuin deacetylase Sirt3." in: **Molecular and cellular biology**, Vol. 33, Issue 10, pp. 2047-55, (2013) (PubMed).

Kamarajan, Alhazzazi, Danciu, Dsilva, Verdin, Kapila: "Receptor-interacting protein (RIP) and Sirtuin-3 (SIRT3) are on opposite sides of anoikis and tumorigenesis." in: **Cancer**, Vol. 118, Issue 23, pp. 5800-10, (2012) (PubMed).

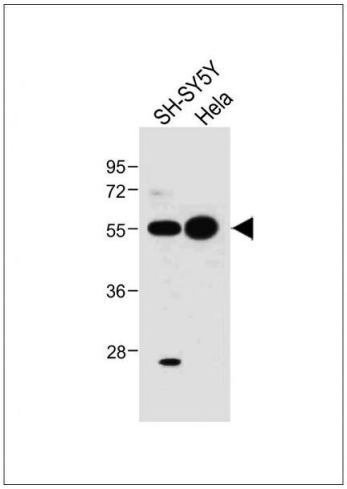
Parker, Vazquez-Manrique, Tourette, Farina, Offner, Mukhopadhyay, Orfila, Darbois, Menet, Tissenbaum, Neri: "Integration of ?-catenin, sirtuin, and FOXO signaling protects from mutant huntingtin toxicity." in: **The Journal of neuroscience : the official journal of the Society for Neuroscience**, Vol. 32, Issue 36, pp. 12630-40, (2012) (PubMed).

There are more publications referencing this product on: Product page



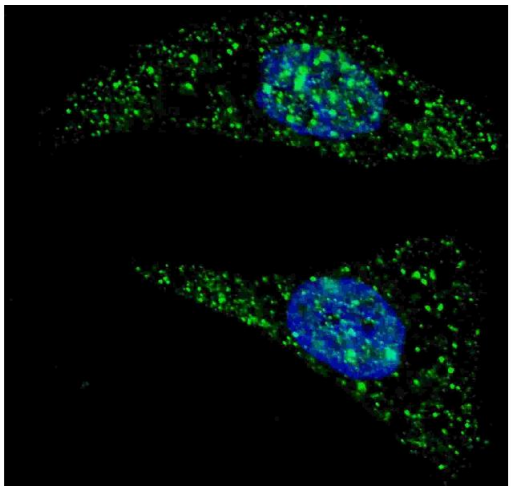
Immunohistochemistry (Paraffin-embedded Sections)

Image 1. Immunohistochemical analysis of paraffin-embedded human liver tissue using (ABIN388518 and ABIN2849631) performed on the Leica® BOND RXm. Tissue was fixed with formaldehyde at room temperature, antigen retrieval was by heat mediation with a EDTA buffer (pH 9. 0). Samples were incubated with primary Antibody (1:500) for 1 hours at room temperature. A undiluted biotinylated CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Western Blotting

Image 2. All lanes : Anti-hG5L-D3 at 1:1000 dilution Lane 1: SH-SY5Y whole cell lysate Lane 2: Hela 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 : 32 kDa Blocking/Dilution buffer: 5 % NFDM/TBST.



Immunofluorescence

Image 3. Fluorescent image of cells stained with ATG5 (N-term) antibody. cells were treated with Chloroquine (50 µ M,16h), then fixed with 4 % PFA (20 min), permeabilized with Triton X-100 (0.2 %, 30 min). Cells were then incubated with (ABIN388518 and ABIN2849631) ATG5 (N-term) primary antibody (1:200, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 µg/mL, 5 min). ATG5 immunoreactivity is localized to autophagic vacuoles in the cytoplasm of cells.