

Atg4b (K-25): sc-130968

BACKGROUND

Autophagy, a process that results in the lysosomal-dependent degradation of cytosolic compartments, is carried out by the autophagosome, which is a double-membrane vesicle whose formation is catalyzed by several autophagy-related gene (Atg) proteins. Atg4b (ATG4 autophagy related 4 homolog B), also known as APG4B, AUTL1 or KIAA0943, is a 393 amino acid protein that localizes to the cytoplasm and belongs to the peptidase C54 family. Expressed in heart, pancreas, brain, liver and skeletal muscle, Atg4b functions as a cysteine protease that cleaves the C-terminal part of target proteins, such as GABARAP and MAP1LC3, and plays an essential role in autophagy. Atg4b exists as multiple alternatively spliced isoforms and is functionally inhibited by N-ethylmaleimide.

REFERENCES

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- Tanida, I., Sou, Y.S., Minematsu-Ikeguchi, N., Ueno, T. and Kominami, E. 2006. Atg8L/Apg8L is the fourth mammalian modifier of mammalian Atg8 conjugation mediated by human Atg4B, Atg7 and Atg3. *FEBS J.* 273: 2553-2562.
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CHROMOSOMAL LOCATION

Genetic locus: ATG4B (human) mapping to 2q37.3; Atg4b (mouse) mapping to 1 D.

SOURCE

Atg4b (K-25) is an affinity purified rabbit polyclonal antibody raised against synthetic Atg4b peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

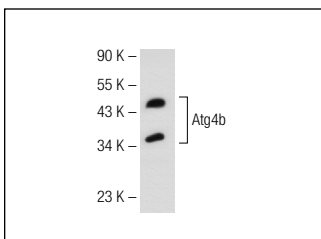
Atg4b (K-25) is recommended for detection of Atg4b of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Atg4B siRNA (h): sc-72584, Atg4B siRNA (m): sc-72585, Atg4B shRNA Plasmid (h): sc-72584-SH, Atg4B shRNA Plasmid (m): sc-72585-SH, Atg4B shRNA (h) Lentiviral Particles: sc-72584-V and Atg4B shRNA (m) Lentiviral Particles: sc-72585-V.

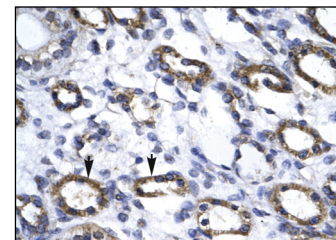
Molecular Weight of Atg4b isoforms 1/2/3/4/5: 44/53/31/37/43 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

DATA



Atg4b (K-25): sc-130968. Western blot analysis of Atg4b expression in 293T whole cell lysate.



Atg4b (K-25): sc-130968. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Yamamoto, M., Okuyama, M., Ma, J.S., Kimura, T., Kamiyama, N., Saiga, H., Ohshima, J., Sasai, M., Kayama, H., Okamoto, T., Huang, D.C., Soldati-Favre, D., Horie, K., Takeda, J. and Takeda, K. 2012. A cluster of interferon-γ-inducible p65 GTPases plays a critical role in host defense against *Toxoplasma gondii*. *Immunity* 37: 302-313.

STORAGE

Store at 4° C, **DO NOT FREEZE** Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.