

# Atg4a (1458CT808.66.25.69): sc-517309

## 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. Atg4a (ATG4 autophagy related 4 homolog A), also known as APG4A or AURL2, is a 398 amino acid protein that localizes to the cytoplasm and belongs to the peptidase C54 family. Expressed in a variety of tissues, including brain, skeletal muscle and fetal liver, Atg4a 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. Atg4a exists as multiple alternatively spliced isoforms and is functionally inhibited by N-ethylmaleimide.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: ATG4A (human) mapping to Xq22.3.

## SOURCE

Atg4a (1458CT808.66.25.69) is a mouse monoclonal antibody raised against a recombinant protein corresponding to Atg4a of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## STORAGE

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

## APPLICATIONS

Atg4a (1458CT808.66.25.69) is recommended for detection of Atg4a of 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 flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

Suitable for use as control antibody for Atg4a siRNA (h): sc-91197, Atg4a shRNA Plasmid (h): sc-91197-SH and Atg4a shRNA (h) Lentiviral Particles: sc-91197-V.

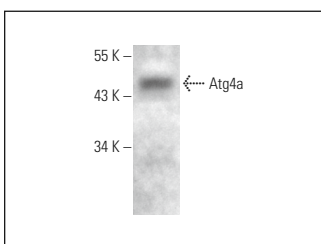
Molecular Weight of Atg4a: 45 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



Atg4a (1458CT808.66.25.69): sc-517309. Western blot analysis of Atg4a expression in K-562 whole cell lysate.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.