

# ALG-2 (H-14): sc-11255

## BACKGROUND

An increased intracellular  $\text{Ca}^{2+}$  concentration induces apoptotic cell death. Transiently elevated  $\text{Ca}^{2+}$  concentrations are required for glucocorticoid-mediated and T cell receptor-mediated pathways, leading to T cell apoptosis. ALG-2 (for apoptosis-linked gene 2) is a  $\text{Ca}^{2+}$ -binding protein that participates in regulatory events occurring late in the apoptotic program and where several death signals converge. ALG-2 is a protein expressed in normal brain, and to a greater extent in ischemic brain. The ALG-2 protein contains five EF-hand-like motifs and shares homology with members of the penta EF-hand family, which includes Calpain small subunits sorcin and Grancalcin.

## REFERENCES

1. McConkey, D.J., et al. 1989. Calcium-dependent killing of immature thymocytes by stimulation via the CD3/T cell receptor complex. *J. Immunol.* 143: 1801-1806.
2. McConkey, D.J., et al. 1989. Glucocorticoids activate a suicide process in thymocytes through an elevation of cytosolic  $\text{Ca}^{2+}$  concentration. *Arch. Biochem. Biophys.* 269: 365-370.
3. Nicotera, P., et al. 1990. The role of  $\text{Ca}^{2+}$  in cell killing. *Chem. Res. Toxicol.* 3: 484-494.
4. Vito, P., et al. 1996. Interfering with apoptosis:  $\text{Ca}^{2+}$ -binding protein ALG-2 and Alzheimer's disease gene ALG-3. *Science* 271: 521-525.
5. D'Adamo, L., et al. 1997. Functional cloning of genes involved in T-cell receptor-induced programmed cell death. *Semin. Immunol.* 9: 17-23.
6. Maki, M., et al. 1997. A growing family of the  $\text{Ca}^{2+}$ -binding proteins with five EF-hand motifs. *Biochem. J.* 328: 718-720.
7. Venn, M.K. and Conway, E.L. 1998. Localization of mRNA for the apoptosis-linked gene ALG-2 in young and aged rat brain. *Neuroreport* 9: 1981-1985.

## CHROMOSOMAL LOCATION

Genetic locus: PDCC6 (human) mapping to 5p15.33; Pdcd6 (mouse) mapping to 13 C1.

## SOURCE

ALG-2 (H-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ALG-2 of human origin.

## PRODUCT

Each vial contains 200  $\mu\text{g}$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-11255 P, (100  $\mu\text{g}$  peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

ALG-2 (H-14) is recommended for detection of ALG-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu\text{g}$  per 100-500  $\mu\text{g}$  of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ALG-2 (H-14) is also recommended for detection of ALG-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ALG-2 siRNA (h): sc-106841, ALG-2 siRNA (m): sc-141006, ALG-2 shRNA Plasmid (h): sc-106841-SH, ALG-2 shRNA Plasmid (m): sc-141006-SH, ALG-2 shRNA (h) Lentiviral Particles: sc-106841-V and ALG-2 shRNA (m) Lentiviral Particles: sc-141006-V.

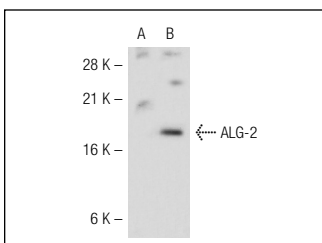
Molecular Weight of ALG-2: 22 kDa.

Positive Controls: ALG-2 (h): 293T Lysate: sc-114742, mouse heart extract: sc-2254 or mouse liver extract sc-2256.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



ALG-2 (H-14): sc-11255. Western blot analysis of ALG-2 expression in non-transfected: sc-117752 (A) and human ALG-2 transfected: sc-114742 (B) 293T whole cell lysates.

## 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) or our catalog for detailed protocols and support products.