

ARC (G-20): sc-19496

BACKGROUND

ARC (apoptosis repressor with CARD domain), also designated nucleolar protein 3 (NOL3, NOP, NOP30) is a caspase-inhibiting protein that requires phosphorylation in order to prevent apoptosis. 5.5- and 1.0-kb ARC human transcripts are present in skeletal muscle and heart. Expression of the 1.0-kb transcript inhibits apoptosis in a dose-dependent manner when coexpressed with caspase-8. ARC interacts with caspase-2 and caspase-8 through its N-terminal death effector domain and is able to bind to caspase-8 in the mitochondria. ARC inhibits apoptosis induced by stimulation of CD95/FAS, tumor necrosis factor receptor-1 and TRAMP/death receptor-3. It is phosphorylated at Threonine 149 by CK2, and this phosphorylation targets ARC to mitochondria.

REFERENCES

- Li, P.F., et al. 2002. Phosphorylation by protein kinase CK2: a signaling switch for the caspase-inhibiting protein ARC. *Mol. Cell* 10: 247-258.
- Jo, D.G., et al. 2004. Calcium binding of ARC mediates regulation of caspase-8 and cell death. *Mol. Cell. Biol.* 24: 9763-9770.

CHROMOSOMAL LOCATION

Genetic locus: NOL3 (human) mapping to 16q22.1; Nol3 (mouse) mapping to 8 D3.

SOURCE

ARC (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ARC of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-19496 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ARC (G-20) is recommended for detection of ARC 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ARC (G-20) is also recommended for detection of ARC in additional species, including canine.

Suitable for use as control antibody for ARC siRNA (h): sc-29722, ARC siRNA (m): sc-29723, ARC shRNA Plasmid (h): sc-29722-SH, ARC shRNA Plasmid (m): sc-29723-SH, ARC shRNA (h) Lentiviral Particles: sc-29722-V and ARC shRNA (m) Lentiviral Particles: sc-29723-V.

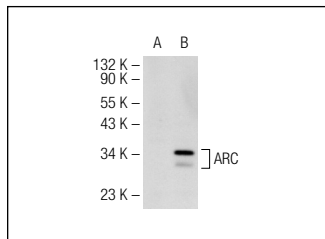
Molecular Weight of ARC: 30 kDa.

Positive Controls: ARC (h2): 293T Lysate: sc-159884, SH-SY5Y cell lysate: sc-3812 or U-87 MG cell lysate: sc-2411.

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



ARC (G-20): sc-19496. Western blot analysis of ARC expression in non-transfected: sc-117752 (A) and human ARC transfected: sc-159884 (B) 293T whole cell lysates.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **ARC (F-11): sc-374177** or **ARC (A-2): sc-390949**, our highly recommended monoclonal alternatives to ARC (G-20).