

ARC (H-150): sc-11435

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.

CHROMOSOMAL LOCATION

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

SOURCE

ARC (H-150) is a rabbit polyclonal antibody raised against amino acids 1-150 mapping at the N-terminus 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.

APPLICATIONS

ARC (H-150) 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), 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 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: HeLa nuclear extract: sc-2120, mouse heart extract: sc-2254 or U-87 MG cell lysate: sc-2411.

STORAGE

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

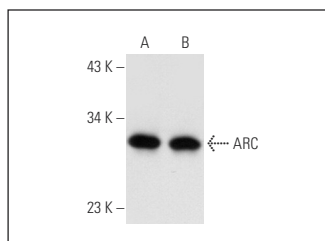
PROTOCOLS

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

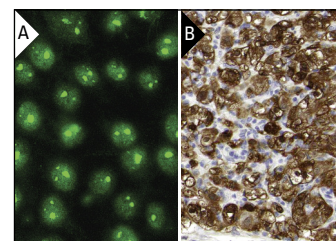
RESEARCH USE

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

DATA



ARC (H-150): sc-11435. Western blot analysis of ARC expression in HeLa nuclear extract (A) and U-87 MG whole cell lysate (B).



ARC (H-150): sc-11435. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic staining of tumor cells magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

- Gustafsson, A.B., et al. 2004. Apoptosis repressor with caspase recruitment domain protects against cell death by interfering with Bax activation. *J. Biol. Chem.* 279: 21233-21238.
- Sasson, R., et al. 2004. Gonadotrophin-induced gene regulation in human granulosa cells obtained from IVF patients. Modulation of steroidogenic genes, cytoskeletal genes and genes coding for apoptotic signalling and protein kinases. *Mol. Hum. Reprod.* 10: 299-311.
- Siu, P.M., et al. 2009. Apoptotic signaling induced by H₂O₂-mediated oxidative stress in differentiated C2C12 myotubes. *Life Sci.* 84: 468-481.
- Jorge-Finnigan, A., et al. 2010. Different altered pattern expression of genes related to apoptosis in isolated methylmalonic aciduria cblB type and combined with homocystinuria cblC type. *Biochim. Biophys. Acta* 1802: 959-967.
- Bouma, W., et al. 2010. Sex-related resistance to myocardial ischemia-reperfusion injury is associated with high constitutive ARC expression. *Am. J. Physiol. Heart Circ. Physiol.* 298: H1510-H1517.
- McMillan, E.M., et al. 2011. Differential apoptosis-related protein expression, mitochondrial properties, proteolytic enzyme activity, and DNA fragmentation between skeletal muscles. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 300: R531-R543.
- Dam, A.D., et al. 2012. Elevated skeletal muscle apoptotic signaling following glutathione depletion. *Apoptosis* 17: 48-60.



Try **ARC (F-11): sc-374177** or **ARC (A-2): sc-390949**, our highly recommended monoclonal alternatives to ARC (H-150).