

ART3 (P-16): sc-74327

BACKGROUND

Mono-ADP-ribosylation is one of the posttranslational protein modifications regulating cellular metabolism (e.g. nitrogen fixation) in prokaryotes. Mono-ADP-ribosylation is a process in which the ADP-ribose moiety of nicotinamide adenine dinucleotide is transferred to an acceptor amino acid. Five mammalian ADP-ribosyltransferases (ART1-ART5) have been cloned and expression is restricted to tissues such as cardiac and skeletal muscle, leukocytes, brain and testis. ART3 (ADP-ribosyltransferase 3), also known as ecto-ADP-ribosyltransferase 3, is a testis specific membrane protein that does not appear to have ADP-ribosyltransferase activity. It lacks the R-S-EXE active site motif and is therefore unable to catalyze the reaction. ART3 is predominantly found in spermatocytes and may play a role in spermatogenesis.

REFERENCES

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- Koch-Nolte, F., et al. 1997. Two novel human members of an emerging mammalian gene family related to mono-ADP-ribosylating bacterial toxins. *Genomics* 39: 370-376.
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- Okazaki, I.J., et al. 1999. Characterization of glycosylphosphatidylinositol-anchored, secreted, and intracellular vertebrate mono-ADP-ribosyltransferases. *Annu. Rev. Nutr.* 19: 485-50.
- Koch-Nolte, F., et al. 2005. Use of genetic immunization to raise antibodies recognizing toxin-related cell surface ADP-ribosyltransferases in native conformation. *Cell. Immunol.* 236: 66-71.
- Friedrich, M., et al. 2006. Genomic organization and expression of the human mono-ADP-ribosyltransferase ART3 gene. *Biochim. Biophys. Acta* 1759: 270-280.
- Friedrich, M., et al. 2006. Expression of toxin-related human mono-ADP-ribosyltransferase 3 in human testes. *Asian J. Androl.* 8: 281-287.
- Muller, O., et al. 2007. Identification of corticosteroid-regulated genes in cardiomyocytes by serial analysis of gene expression. *Genomics* 89: 370-377.

CHROMOSOMAL LOCATION

Genetic locus: Art3 (mouse) mapping to 5 E2.

SOURCE

ART3 (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ART3 of mouse origin.

STORAGE

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

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-74327 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ART3 (P-16) is recommended for detection of ART3 of mouse and rat 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).

Suitable for use as control antibody for ART3 siRNA (m): sc-72538, ART3 shRNA Plasmid (m): sc-72538-SH and ART3 shRNA (m) Lentiviral Particles: sc-72538-V.

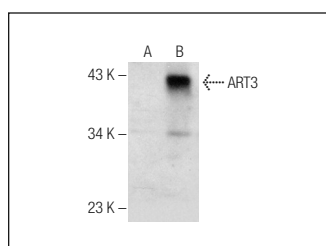
Molecular Weight of ART3: 37 kDa.

Positive Controls: ART3 (m): 293T Lysate: sc-178307.

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



ART3 (P-16): sc-74327. Western blot analysis of ART3 expression in non-transfected: sc-117752 (A) and mouse ART3 transfected: sc-178307 (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 or our catalog for detailed protocols and support products.