SANTA CRUZ BIOTECHNOLOGY, INC.

ART5 (L-14): sc-131415

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 each ART is expressed in different tissues. ART5 (ADP-ribosyltransferase 5), also known as Ecto-ADP-ribosyltransferase 5, is a 292 amino acid secretory protein that is expressed in testis, heart, skeletal muscle and lymphoma. Functionally, ART5 is implicatetd to play a role in cell signaling and metabolism cascades. Two isoforms of ART5 exist as a result of alternative splicing events.

REFERENCES

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2. Koch-Nolte, F., et al. 1997. Two novel human members of an em-erging mammalian gene family related to mono-ADP-ribosylating bacterial toxins. Genomics 39: 370-376.
3. Okazaki, I.J. and Moss, J. 1999. Characterization of glycosylphos-phatidylinositiol-anchored, secreted, and intracellular vertebrate mono-ADP-ribosyltransferases. Annu. Rev. Nutr. 19: 485-509.
4. Seman, M., et al. 2004. Ecto-ADP-ribosyltransferases (ARTs): emerging actors in cell communication and signaling. Curr. Med. Chem. 11: 857-872.
5. 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.
6. Friedrich, M., et al. 2006. Genomic organization and expression of the human mono-ADP-ribosyltransferase ART3 gene. Biochim. Biophys. Acta 1759: 270-280.
7. Friedrich, M., et al. 2006. Expression of toxin-related human mono-ADP-ribosyltransferase 3 in human testes. Asian J. Androl. 8: 281-287.
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CHROMOSOMAL LOCATION

Genetic locus: ART5 (human) mapping to 11p15.4; Art5 (mouse) mapping to 7 E3.

SOURCE

ART5 (L-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ART5 of human 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-131415 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ART5 (L-14) is recommended for detection of ART5 isoforms 1 and 2 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); non cross-reactive with other ART family members.

ART5 (L-14) is also recommended for detection of ART5 isoforms 1 and 2 in additional species, including equine and porcine.

Suitable for use as control antibody for ART5 siRNA (h): sc-96786, ART5 siRNA (m): sc-141280, ART5 shRNA Plasmid (h): sc-96786-SH, ART5 shRNA Plasmid (m): sc-141280-SH, ART5 shRNA (h) Lentiviral Particles: sc-96786-V and ART5 shRNA (m) Lentiviral Particles: sc-141280-V.

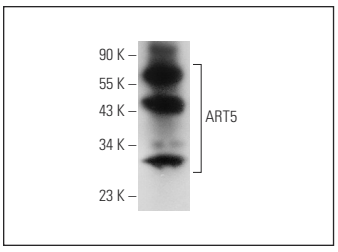
Molecular Weight of ART5: 32 kDa.

Positive Controls: PANC-1 whole cell lysate: sc-364380.

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) Immunoprecip-itation: 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



ART5 (L-14): sc-131415. Western blot analysis of ART5 expression in PANC-1 whole cell lysate.

RESEARCH USE

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