SANTA CRUZ BIOTECHNOLOGY, INC.

ART2 (M-90): sc-33130

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 posttranslational modification of proteins 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. ART1 and ART2 are glycosyl-phosphatidylinositol (GPI)-anchored ectoenzymes expressed at the cell surface of rat and mouse T lymphocytes. ART1 is a protein that is expressed in human skeletal muscle. In skeletal muscle and lymphocytes, ART1 modifies specific members of the Integrin family of adhesion molecules, suggesting that ADP-ribosylation affects cell-matrix or cell-cell interactions.

REFERENCES

1. Okazaki, I.J., et al. 1994. Immunological and structural conservation of mammalian skeletal muscle glycosyl-phosphatidylinositol-linked ADP-ribosyltransferases. Biochemistry 33: 12828-12836.
2. Koch-Nolte, F., et al. 1996. Assignment of the human and mouse genes for muscle ecto-mono-ADP-ribosyltransferase to a conserved linkage group on human chromosome 11p15 and mouse chromosome 7. Genomics 36: 215-216.
3. 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.
4. Braren, R., et al. 1998. Molecular characterization and expression of the gene for mouse NAD+:arginine ecto-mono-ADP-ribosyltransferase, ART1. Biochem. J. 336: 561-568.
5. Okazaki, I.J. and Moss, J. 1999. Characterization of glycosyl-phosphatidyl-inositol-anchored, secreted and intracellular vertebrate mono-ADP-ribosyl-transferases. Annu. Rev. Nutr. 19: 485-509.

CHROMOSOMAL LOCATION

Genetic locus: Art2a/Art2b (mouse) mapping to 7 E3.

SOURCE

ART2 (M-90) is a rabbit polyclonal antibody raised against amino acids 41-130 mapping near the N-terminus of ART2 of mouse origin.

PRODUCT

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

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.

APPLICATIONS

ART2 (M-90) is recommended for detection of ART2 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).

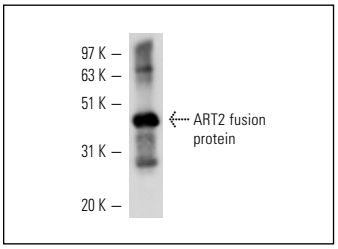
Molecular Weight of ART2: 40 kDa.

Positive Controls: L6 whole cell lysate: sc-364196.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ART2 (M-90): sc-33130. Western blot analysis of mouse recombinant ART2 fusion protein.

PROTOCOLS

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