SANTA CRUZ BIOTECHNOLOGY, INC.

ART2 (S-20): sc-20257

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: Art2b (rat) mapping to 1q32.

SOURCE

ART2 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ART2 of rat 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-20257 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

ART2 (S-20) is recommended for detection of ART2 of 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).

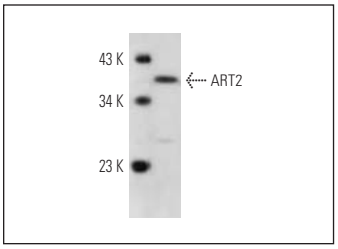
Molecular Weight of ART2: 40 kDa.

Positive Controls: L6 whole cell lysate.

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



ART2 (S-20): sc-20257. Western blot analysis of ART2 expression in L6 whole cell lysate.

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.