

ART1 (H-110): sc-20650

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 glycosylphosphatidylinositol (GPI)-anchored ectoenzymes expressed at the cell surface of rat and mouse T lymphocytes. ART1 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

- Okazaki, I.J., et al. 1994. Immunological and structural conservation of mammalian skeletal muscle glycosylphosphatidylinositol-linked ADP-ribosyltransferases. *Biochemistry* 33: 12828-12836.
- Koch-Nolte, F., et al. 1996. Assignment of the human and mouse genes for muscle ecto mono(ADP-ribose) transferase to a conserved linkage group on human chromosome 11p15 and mouse chromosome 7. *Genomics* 36: 215-216.
- 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.
- Braren, R., et al. 1998. Molecular characterization and expression of the gene for mouse NAD⁺: Arginine ecto-mono (ADP-ribose) transferase, ART1. *Biochem. J.* 336: 561-568.
- Okazaki, I.J., et al. 1999. Characterization of glycosylphosphatidylinositol-anchored, secreted, and intracellular vertebrate mono-ADP-ribosyltransferases. *Annu. Rev. Nutr.* 19: 485-509.

CHROMOSOMAL LOCATION

Genetic locus: ART1 (human) mapping to 11p15; Art1 (mouse) mapping to 7 E2.

SOURCE

ART1 (H-110) is a rabbit polyclonal antibody raised against amino acids 51-160 of ART1 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.

STORAGE

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

APPLICATIONS

ART1 (H-110) is recommended for detection of ART1 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).

ART1 (H-110) is also recommended for detection of ART1 in additional species, including porcine.

Suitable for use as control antibody for ART1 siRNA (h): sc-42731, ART1 siRNA (m): sc-42732, ART1 shRNA Plasmid (h): sc-42731-SH, ART1 shRNA Plasmid (m): sc-42732-SH, ART1 shRNA (h) Lentiviral Particles: sc-42731-V and ART1 shRNA (m) Lentiviral Particles: sc-42732-V.

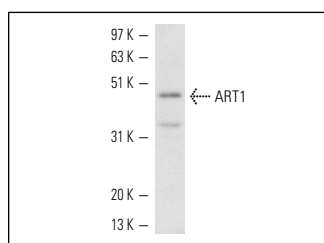
Molecular Weight of ART1: 40 kDa.

Positive Controls: rat testis extract: sc-2400.

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



ART1 (H-110): sc-20650. Western blot analysis of human recombinant ART1 fusion protein.

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.