

ART2 (A-2): sc-515135

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

- Okazaki, I.J., et al. 1994. Immunological and structural conservation of mammalian skeletal muscle glycosyl-phosphatidylinositol-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-ribosyltransferase 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-ribosyltransferase, ART1. *Biochem. J.* 336: 561-568.
- Okazaki, I.J. and Moss, J. 1999. Characterization of glycosyl-phosphatidylinositol-anchored, secreted and intracellular vertebrate mono-ADP-ribosyltransferases. *Annu. Rev. Nutr.* 19: 485-509.

CHROMOSOMAL LOCATION

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

SOURCE

ART2 (A-2) is a mouse monoclonal antibody raised against amino acids 41-130 mapping near the N-terminus of ART2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ART2 (A-2) is available conjugated to agarose (sc-515135 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515135 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515135 PE), fluorescein (sc-515135 FITC), Alexa Fluor® 488 (sc-515135 AF488), Alexa Fluor® 546 (sc-515135 AF546), Alexa Fluor® 594 (sc-515135 AF594) or Alexa Fluor® 647 (sc-515135 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515135 AF680) or Alexa Fluor® 790 (sc-515135 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ART2 (A-2) is recommended for detection of ART2 of mouse origin by Western Blotting (starting dilution 1:100, 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).

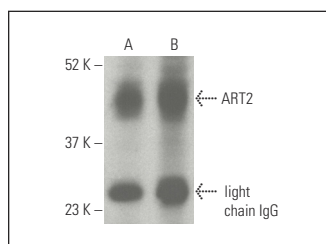
Molecular Weight of ART2: 40 kDa.

Positive Controls: mouse spleen extract: sc-2391 or mouse thymus extract: sc-2406.

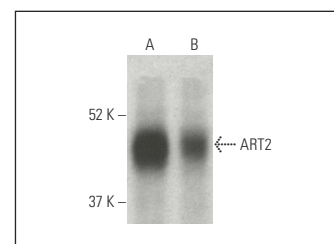
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ART2 (A-2): sc-515135. Western blot analysis of ART2 expression in mouse spleen (A) and mouse thymus (B) tissue extracts. Detection reagent used: m-IgGκ BP-HRP: sc-516102. Note the presence of light chain IgG bands.



ART2 (A-2): sc-515135. Western blot analysis of ART2 expression in mouse spleen (A) and mouse thymus (B) tissue extracts. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

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.

PROTOCOLS

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

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