

ART2 (3H553): sc-70384

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-phosphatidylinositol-anchored, secreted and intracellular vertebrate mono-ADP-ribosyltransferases. *Annu. Rev. Nutr.* 19: 485-509.

CHROMOSOMAL LOCATION

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

SOURCE

ART2 (3H553) is a rat monoclonal antibody raised against ART2 of mouse origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} 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 (3H553) is recommended for detection of ART2 of mouse origin by immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for ART2A siRNA (m): sc-42733, ART2A shRNA Plasmid (m): sc-42733-SH and ART2A shRNA (m) Lentiviral Particles: sc-42733-V.

Molecular Weight of ART2: 40 kDa.

PROTOCOLS

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