

SART-2 (N-15): sc-169252

BACKGROUND

SART-2 (squamous cell carcinoma antigen recognized by T cells 2), also known as DSE (dermatan sulfate epimerase), is a 958 amino acid multi-pass membrane protein that belongs to the dermatan-sulfate isomerase family. The SART-2 protein converts D-glucuronic acid to L-iduronic acid (IdoUA) residues. Localized to the endoplasmic reticulum, SART-2 is ubiquitously expressed with higher expression in kidney and ovary and lower expression in brain, colon and thymus. Also expressed in renal cell carcinomas, brain tumors, and in a part of melanomas and adenocarcinomas from organs other than the breast, SART-2 is expressed in squamous cell carcinomas (SCC), glioma, and some adenocarcinoma cell lines, but not in breast cancer cell lines or any normal tissues (at protein level). Containing six exons, the SART-2 gene is conserved in chimpanzee, canine, bovine, mouse, rat, avian and zebrafish, and maps to human chromosome 6q22.1.

REFERENCES

1. Nakao, M., Shichijo, S., Imaizumi, T., Inoue, Y., Matsunaga, K., Yamada, A., Kikuchi, M., Tsuda, N., Ohta, K., Takamori, S., Yamana, H., Fujita, H. and Itoh, K. 2000. Identification of a gene coding for a new squamous cell carcinoma antigen recognized by the CTL. *J. Immunol.* 164: 2565-2574.
2. Tanaka, S., Tsuda, N., Kawano, K., Sakamoto, M., Nishida, T., Hashimoto, T., Shichijo, S., Kamura, T. and Itoh, K. 2000. Expression of tumor-rejection antigens in gynecologic cancers. *Jpn. J. Cancer Res.* 91: 1177-1184.
3. Online Mendelian Inheritance in Man, OMIM[™]. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 605942. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Sasatomi, T., Suefuji, Y., Matsunaga, K., Yamana, H., Miyagi, Y., Araki, Y., Ogata, Y., Itoh, K. and Shirouzu, K. 2002. Expression of tumor rejection antigens in colorectal carcinomas. *Cancer* 94: 1636-1641.
5. Suzuki, N., Maeda, Y., Tanaka, S., Hida, N., Mine, T., Yamamoto, K., Oka, M. and Itoh, K. 2002. Detection of peptide-specific cytotoxic T-lymphocyte precursors used for specific immunotherapy of pancreatic cancer. *Int. J. Cancer* 98: 45-50.
6. Mungall, A.J., et al. 2003. The DNA sequence and analysis of human chromosome 6. *Nature* 425: 805-811.

CHROMOSOMAL LOCATION

Genetic locus: DSE (human) mapping to 6q22.1; Dse (mouse) mapping to 10 B1.

SOURCE

SART-2 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SART-2 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.

Blocking peptide available for competition studies, sc-169252 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SART-2 (N-15) is recommended for detection of SART-2 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); non cross-reactive with other SART family members.

SART-2 (N-15) is also recommended for detection of SART-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for SART-2 siRNA (h): sc-95481, SART-2 siRNA (m): sc-153225, SART-2 shRNA Plasmid (h): sc-95481-SH, SART-2 shRNA Plasmid (m): sc-153225-SH, SART-2 shRNA (h) Lentiviral Particles: sc-95481-V and SART-2 shRNA (m) Lentiviral Particles: sc-153225-V.

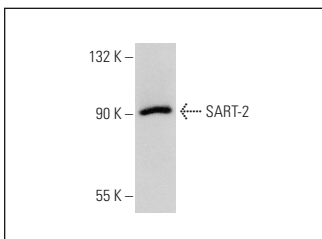
Molecular Weight of SART-2: 110 kDa.

Positive Controls: human kidney extract: sc-363764.

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



SART-2 (N-15): sc-169252. Western blot analysis of SART-2 expression in human kidney tissue extract.

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 or our catalog for detailed protocols and support products.