

SARM (C-20): sc-130620

BACKGROUND

SARM (sterile α and TIR motif), also known as SAMD2, SARM1 or KIAA0524, is a 724 amino acid protein that localizes to the cytoplasm and contains one TIR domain and two sterile α motif (SAM) domains. Expressed predominately in liver and kidney and present at lower levels in placenta, SARM interacts with TICAM-1 and, via this interaction, blocks the transcriptional activation activity of TICAM-1 and functions as a negative regulator of Toll-like receptor signaling. Additionally, SARM is thought to be involved in innate immune responses and may also play a role in the negative regulation of NF κ B activation. SARM exists as two alternatively spliced isoforms that are encoded by a gene which maps to human chromosome 17.

REFERENCES

1. Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. IX. The complete sequences of 100 new cDNA clones from brain which can code for large proteins *in vitro*. DNA Res. 5: 31-39.
2. Mink, M., et al. 2001. A novel human gene (SARM) at chromosome 17q11 encodes a protein with a SAM motif and structural similarity to Armadillo/ β -catenin that is conserved in mouse, *Drosophila* and *Caenorhabditis elegans*. Genomics 74: 234-244.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607732. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Liberati, N.T., et al. 2004. Requirement for a conserved Toll/interleukin-1 resistance domain protein in the *Caenorhabditis elegans* immune response. Proc. Natl. Acad. Sci. USA 101: 6593-6598.
5. Mink, M. and Csiszar, K. 2005. SARM1: A candidate gene in the onset of hereditary infectious/inflammatory diseases. Clin. Immunol. 115: 333-334.
6. Carty, M., et al. 2006. The human adaptor SARM negatively regulates adaptor protein TRIF-dependent Toll-like receptor signaling. Nat. Immunol. 7: 1074-1081.
7. Molday, L.L., et al. 2007. Retinoschisin (RS1), the protein encoded by the X-linked retinoschisis gene, is anchored to the surface of retinal photoreceptor and bipolar cells through its interactions with a Na/K ATPase-SARM1 complex. J. Biol. Chem. 282: 32792-32801.
8. Dalod, M. 2007. Studies of SARM1 uncover similarities between immune and neuronal responses to danger. Sci. STKE 2007: pe73.

CHROMOSOMAL LOCATION

Genetic locus: SARM1 (human) mapping to 17q11.2; Sarm1 (mouse) mapping to 11 B5.

STORAGE

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

PROTOCOLS

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

SOURCE

SARM (C-20) is a purified rabbit polyclonal antibody raised against a synthetic peptide within the C-terminus of SARM of human origin.

PRODUCT

Each vial contains 50 μ g IgG in 500 μ l PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SARM (C-20) is recommended for detection of SARM of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for SARM siRNA (h): sc-62976, SARM siRNA (m): sc-62977, SARM shRNA Plasmid (h): sc-62976-SH, SARM shRNA Plasmid (m): sc-62977-SH, SARM shRNA (h) Lentiviral Particles: sc-62976-V and SARM shRNA (m) Lentiviral Particles: sc-62977-V.

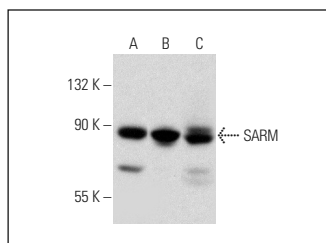
Molecular Weight of SARM: 79 kDa.

Positive Controls: mouse testis extract: sc-2405, Daudi cell lysate: sc-2415 or F9 cell lysate: sc-2245.

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).

DATA



SARM (C-20): sc-130620. Western blot analysis of SARM expression in F9 (A) and Daudi (B) whole cell lysates and mouse testis tissue extract (C).

RESEARCH USE

For research use only, not for use in diagnostic procedures.