

SPARC (OST1): sc-59703

BACKGROUND

SPARC (for secreted protein acidic and rich in cysteine) is a phosphorylated, acidic, glycine-rich glycoprotein that is secreted by endothelial cells and is present in large amounts in the parietal endoderm of mouse embryos and in human placenta. It is identical to osteonectin, a protein important to bone calcification that is highly conserved between species. SPARC, which can be selectively expressed by the endothelium in response to certain types of injury, induces rounding in adherent endothelial cells *in vitro*. It regulates endothelial barrier function through F-Actin-dependent changes in cell shape, coincident with the appearance of intercellular gaps, which provide a paracellular pathway for extravasation of macromolecules.

REFERENCES

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2. Findlay, D.M., Fisher, L.W., McQuillan, C.I., Termine, J.D. and Young, M.F. 1988. Isolation of the osteonectin gene: evidence that a variable region of the osteonectin molecule is encoded within one exon. *Biochemistry* 27: 1483-1489.
3. Le Beau, M.M., Espinosa, R. 3rd, Neuman, W.L., Stock, W., Roulston, D., Larson, R.A., Keinanen, M. and Westbrook, C.A. 1993. Cytogenetic and molecular delineation of the smallest commonly deleted region of chromosome 5 in malignant myeloid diseases. *Proc. Nat. Acad. Sci. USA* 90: 5484-5488.
4. Goldblum, S.E., Ding, X., Funk, S.E. and Sage, E.H. 1994. SPARC (secreted protein acidic and rich in cysteine) regulates endothelial cell shape and barrier function. *Proc. Nat. Acad. Sci. USA* 91: 3448-3452.

CHROMOSOMAL LOCATION

Genetic locus: SPARC (human) mapping to 5q33.1.

SOURCE

SPARC (OST1) is a mouse monoclonal antibody raised against SPARC of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ 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.

PROTOCOLS

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

APPLICATIONS

SPARC (OST1) is recommended for detection of SPARC of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for SPARC siRNA (h): sc-37166, SPARC shRNA Plasmid (h): sc-37166-SH and SPARC shRNA (h) Lentiviral Particles: sc-37166-V.

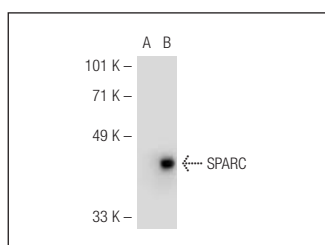
Molecular Weight of SPARC: 43 kDa.

Positive Controls: A-375 cell lysate: sc-3811, U-2 OS cell lysate: sc-2295 or SPARC (h3): 293T Lysate: sc-170454.

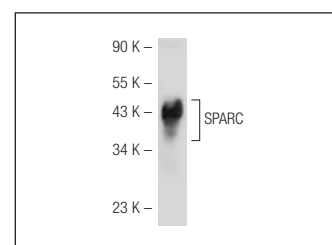
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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



SPARC (OST1): sc-59703. Western blot analysis of SPARC expression in non-transfected: sc-117752 (A) and human SPARC transfected: sc-111589 (B) 293T whole cell lysates.



SPARC (OST1): sc-59703. Western blot analysis of SPARC expression in A-375 whole cell lysates.

RESEARCH USE

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