**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**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

SPARC (D-2) is a mouse monoclonal antibody raised against amino acids 1-90 of SPARC of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. SPARC (D-2) is available conjugated to agarose (sc-398419 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398419 HRP), 200 µg/ml, for WB, (HCP) and ELISA; to either phycoerythrin (sc-398419 PE), fluorescein (sc-398419 FITC), Alexa Fluor® 488 (sc-398419 AF488), Alexa Fluor® 546 (sc-398419 AF546), Alexa Fluor® 594 (sc-398419 AF594) or Alexa Fluor® 647 (sc-398419 AF647), 200 µg/ml, for WB (RGB), IF, (HCP) and FCM; and to either Alexa Fluor® 680 (sc-398419 AF680) or Alexa Fluor® 790 (sc-398419 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**STORAGE**

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

**APPLICATIONS**

SPARC (D-2) is recommended for detection of SPARC of human 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

**DATA**

**RESEARCH USE**

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

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