

SPARC (M-15): sc-13326

BACKGROUND

SPARC (secreted protein acidic and rich in cysteine or osteonectin) 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*. SPARC regulates endothelial barrier function through F-actin-dependent changes in cell shape coincident with the appearance of intercellular gaps that provide a paracellular pathway for extravasation of macromolecules.

CHROMOSOMAL LOCATION

Genetic locus: SPARC (human) mapping to 5q33.1; Sparc (mouse) mapping to 11 B1.3.

SOURCE

SPARC (M-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of SPARC of mouse 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-13326 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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

SPARC (M-15) is recommended for detection of SPARC of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

SPARC (M-15) is also recommended for detection of SPARC in additional species, including equine, canine, porcine and avian.

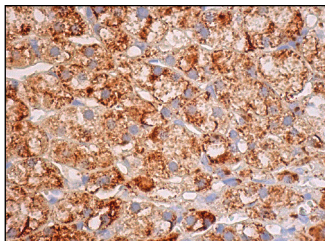
Suitable for use as control antibody for SPARC siRNA (h): sc-37166, SPARC siRNA (m): sc-41034, SPARC shRNA Plasmid (h): sc-37166-SH, SPARC shRNA Plasmid (m): sc-41034-SH, SPARC shRNA (h) Lentiviral Particles: sc-37166-V and SPARC shRNA (m) Lentiviral Particles: sc-41034-V.

Molecular Weight of SPARC: 43 kDa.

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) 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



SPARC (M-15): sc-13326. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- White, C.A., et al. 2004. Uterine extracellular matrix components are altered during defective decidualization in interleukin-11 receptor α deficient mice. *Reprod. Biol. Endocrinol.* 2: 76.
- Stary, M., et al. 2005. Parietal endoderm secreted SPARC promotes early cardiomyogenesis *in vitro*. *Exp. Cell Res.* 310: 331-343.
- Raustyte, G., et al. 2006. Calcium deposition and expression of bone modelling markers in the tympanic membrane following acute otitis media. *Int. J. Pediatr. Otorhinolaryngol.* 70: 529-539.
- Wu, R.X., et al. 2006. Fibroblast migration after myocardial infarction is regulated by transient SPARC expression. *J. Mol. Med.* 84: 241-252.
- Mendes, R.M., et al. 2008. Sodium hyaluronate accelerates the healing process in tooth sockets of rats. *Arch. Oral Biol.* 53: 1155-1162.
- Ma, C.H., et al. 2009. Synergistic effects of osteonectin and NGF in promoting survival and neurite outgrowth of superior cervical ganglion neurons. *Brain Res.* 1289: 1-13.

MONOS
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Try **SPARC (D-2): sc-398419** or **SPARC (AON-1): sc-33645**, our highly recommended monoclonal alternatives to SPARC (M-15). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **SPARC (D-2): sc-398419**.