

SPARC (h3): 293T Lysate: sc-170454

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

1. Termine, J.D., Kleinman, H.K., Whitson, S.W., Conn, K.M., McGarvey, M.L. and Martin, G.R. 1981. Osteonectin, a bone-specific protein linking mineral to collagen. *Cell* 26: 99-105.
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. III, 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.

PRODUCT

SPARC (h3): 293T Lysate represents a lysate of human SPARC transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

SPARC (h3): 293T Lysate is suitable as a Western Blotting positive control for human reactive SPARC antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. 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 for detailed protocols and support products.