SANTA CRUZ BIOTECHNOLOGY, INC.

SMOC-2 (H-53): sc-67396

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

SMOC-2 (SPARC-related modular calcium-binding protein-2), also known as SMAP2, MST117, MSTP117 or MSTP140, is a secreted modular calcium-binding glycoprotein found in the extracellular space. SMOC-2 is a member of the SPARC/BM-40 family and contains two EF-hand domains, one Kazal-like domain and two Thyroglobulin type 1 domains. The SPARC/BM-40 family has been implicated in tissue remodeling, angiogenesis and bone mineralization. SMOC-2 is a widely expressed protein with highest expression levels found in spleen, ovary, muscle and heart tissues. SMOC-2 may interact directly with VEGF or FGF and is believed to participate in angiogenic activity, cell proliferation and migration. In addition, SMOC-2 is required for efficient growth factor-induced DNA synthesis, and its overexpression greatly stimulates DNA synthesis. For this reason, SMOC-2 is a potential target for antiangiogenic therapies.

REFERENCES

1. Vannahme, C., et al. 2002. Characterization of SMOC-1, a novel modular calcium-binding protein in basement membranes. J. Biol. Chem. 277: 37977-37986.
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3. Rocnik, E.F., et al. 2006. The novel SPARC family member SMOC-2 potentiates angiogenic growth factor activity. J. Biol. Chem. 281: 22855-22864.
4. Gersdorff, N., et al. 2006. Secreted modular calcium-binding protein-1 localization during mouse embryogenesis. Histochem. Cell Biol. 126: 705-712.
5. Srivastava, J., et al. 2006. Transcriptional status of known and novel genes tagged with consensus of 33.15 repeat loci employing minisatellite-associated sequence amplification (MASA) and real-time PCR in water buffalo, *Bubalus bubalis*. DNA Cell Biol. 25: 31-48.
6. Sosnoski, D.M. and Gay, C.V. 2007. Evaluation of bone-derived and marrow-derived vascular endothelial cells by microarray analysis. J. Cell. Biochem. 102: 463-472.
7. Albig, A.R., et al. 2007. Transcriptome analysis of endothelial cell gene expression induced by growth on matrigel matrices: identification and characterization of MAGP-2 and lumican as novel regulators of angiogenesis. Angiogenesis 10: 197-216.

CHROMOSOMAL LOCATION

Genetic locus: SMOC2 (human) mapping to 6q27; Smoc2 (mouse) mapping to 17 A2.

SOURCE

SMOC-2 (H-53) is a rabbit polyclonal antibody raised against amino acids 71-123 mapping near the N-terminus of SMOC-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

SMOC-2 (H-53) is recommended for detection of SMOC-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

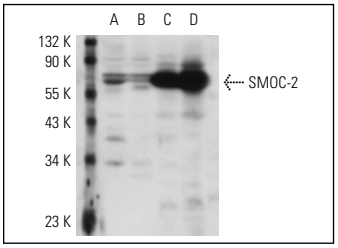
SMOC-2 (H-53) is also recommended for detection of SMOC-2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SMOC-2 siRNA (h): sc-63046, SMOC-2 siRNA (m): sc-63047, SMOC-2 shRNA Plasmid (h): sc-63046-SH, SMOC-2 shRNA Plasmid (m): sc-63047-SH, SMOC-2 shRNA (h) Lentiviral Particles: sc-63046-V and SMOC-2 shRNA (m) Lentiviral Particles: sc-63047-V.

Molecular Weight of SMOC-2: 54 kDa.

Positive Controls: A-10 cell lysate: sc-3806, C2C12 whole cell lysate: sc-364188 or mouse heart extract: sc-2254.

DATA



SMOC-2 (H-53): sc-67396. Western blot analysis of SMOC-2 expression in A-10 (**A**) and C2C12 (**B**) whole cell lysates and rat skeletal muscle (**C**) and mouse heart (**D**) tissue extracts.

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.

PROTOCOLS

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