SANTA CRUZ BIOTECHNOLOGY, INC.

SMOC-1 (H-46): sc-67395

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

SMOC-1 (SPARC-related modular calcium-binding protein-1) is a secreted modular calcium-binding protein found in the extracellular space in or around the basement membrane. SMOC-1 is a member of the BM-40 family and contains two EF-hand domains, one Kazal-like domain and two thyroglobulin type-1 domains. The BM-40 family has been implicated with tissue remodeling, angiogenesis and bone mineralization. In embryonic stage day 12, and fetal stages day 14, 16 and 18, the SMOC-1 protein is present in the basement membrane zones of brain, blood vessels, skin, skeletal muscle, lung, heart, liver, pancreas, ovary, intestine and kidney. This broad and organ-specific distribution suggests multifunctional roles of SMOC-1 during embryogenesis.

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.
2. Vannahme, C., et al. 2003. Characterization of SMOC-2, a modular extracellular calcium-binding protein. Biochem. J. 373: 805-814.
3. 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.
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. 2007. Characterization of SMOC-1 uncovers two transcript variants showing differential tissue and age specific expression in *Bubalus bubalis*. BMC Genomics 8: 436-436.
6. Sherva, R., et al. 2007. A whole genome scan for pulse pressure/stroke volume ratio in African Americans: the HyperGEN study. Am. J. Hypertens. 20: 398-402.

CHROMOSOMAL LOCATION

Genetic locus: SMOC1 (human) mapping to 14q24.2; Smoc1 (mouse) mapping to 12 D1.

SOURCE

SMOC-1 (H-46) is a rabbit polyclonal antibody raised against amino acids 285-330 mapping within an internal region of SMOC-1 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.

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

SMOC-1 (H-46) is recommended for detection of SMOC-1 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).

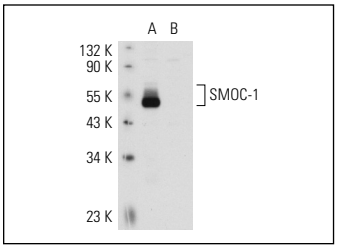
SMOC-1 (H-46) is also recommended for detection of SMOC-1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for SMOC-1 siRNA (h): sc-63044, SMOC-1 siRNA (m): sc-63045, SMOC-1 shRNA Plasmid (h): sc-63044-SH, SMOC-1 shRNA Plasmid (m): sc-63045-SH, SMOC-1 shRNA (h) Lentiviral Particles: sc-63044-V and SMOC-1 shRNA (m) Lentiviral Particles: sc-63045-V.

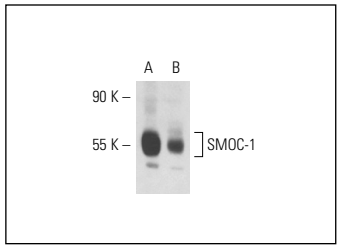
Molecular Weight of SMOC-1: 54 kDa.

Positive Controls: SMOC-1 (h): 293 Lysate: sc-110902, mouse ovary extract: sc-2404 or rat ovary extract: sc-2399.

DATA



SMOC-1 (H-46): sc-67395. Western blot analysis of SMOC-1 expression in human SMOC-1 transfected: sc-110902 (**A**) and non-transfected: sc-110760 (**B**) 293 whole cell lysates.



SMOC-1 (H-46): sc-67395. Western blot analysis of SMOC-1 expression in mouse ovary (**A**) and rat ovary (**B**) tissue extracts.

PROTOCOLS

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