

# SMOC-2 (P-15): sc-55295

## 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

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- 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.
- Liu, P., et al. 2008. The SPARC-related factor SMOC-2 promotes growth factor-induced cyclin D1 expression and DNA synthesis via integrin-linked kinase. *Mol. Biol. Cell* 19: 248-261.

## CHROMOSOMAL LOCATION

Genetic locus: SMOC2 (human) mapping to 6q27.

## SOURCE

SMOC-2 (P-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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.

Blocking peptide available for competition studies, sc-55295 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SMOC-2 (P-15) is recommended for detection of SMOC-2 of human and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SMOC-2 (P-15) is also recommended for detection of SMOC-2 in additional species, including equine, canine and porcine.

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

Molecular Weight of SMOC-2: 54 kDa.

Positive Controls: A-10 cell lysate: sc-3806.

## 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.