

BMP-9 (C-16): sc-27821

BACKGROUND

Bone morphogenetic protein-9 (BMP-9), like other members of the TGF β growth factor superfamily, plays an important role in tissue morphogenesis, particularly in bone and connective tissue. Additionally, liver cells such as Hep G2 express receptors to BMP-9, through which it stimulates cell proliferation and regulates blood glucose concentration, an effect not observed in treatment with TGF β . These *in vivo* activities appear to be exploitable in novel therapies; research shows that addition of BMP-9 or BMP-9 encoding adenoviral vectors promote bone formation *ex vivo* and in immune deficient animals.

REFERENCES

1. Song, J.J., et al. 1995. Bone morphogenetic protein-9 binds to liver cells and stimulates proliferation. *Endocrinology* 136: 4293-4297.
2. Majumdar, M.K., et al. 2001. BMP-2 and BMP-9 promotes chondrogenic differentiation of human multipotential mesenchymal cells and overcomes the inhibitory effect of IL-1. *J. Cell. Physiol.* 189: 275-284.
3. Chen, C., et al. 2003. An integrated functional genomics screening program reveals a role for BMP-9 in glucose homeostasis. *Nat. Biotechnol.* 21: 294-301.

CHROMOSOMAL LOCATION

Genetic locus: GDF2 (human) mapping to 10q11.22; Gdf2 (mouse) mapping to 14 B.

SOURCE

BMP-9 (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of BMP-9 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-27821 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BMP-9 (C-16) is recommended for detection of precursor and mature BMP-9 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

BMP-9 (C-16) is also recommended for detection of precursor and mature BMP-9 in additional species, including equine, canine, bovine and porcine.

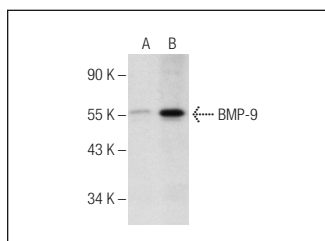
Suitable for use as control antibody for BMP-9 siRNA (h): sc-39756, BMP-9 siRNA (m): sc-39757, BMP-9 shRNA Plasmid (h): sc-39756-SH, BMP-9 shRNA Plasmid (m): sc-39757-SH, BMP-9 shRNA (h) Lentiviral Particles: sc-39756-V and BMP-9 shRNA (m) Lentiviral Particles: sc-39757-V.

Positive Controls: BMP-9 (h): 293T Lysate: sc-370246.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



BMP-9 (C-16): sc-27821. Western blot analysis of BMP-9 expression in non-transfected: sc-117752 (A) and human BMP-9 transfected: sc-370246 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Caperuto, L.C., et al. 2008. Modulation of bone morphogenetic protein-9 expression and processing by Insulin, glucose, and glucocorticoids: possible candidate for hepatic Insulin-sensitizing substance. *Endocrinology* 149: 6326-6335.
2. Ren, W., et al. 2014. BMP9 inhibits the bone metastasis of breast cancer cells by downregulating CCN2 (connective tissue growth factor, CTGF) expression. *Mol. Biol. Rep.* 41: 1373-1383.

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.

MONOS
Satisfaction
Guaranteed

Try **BMP-9 (H-3): sc-514211** or **BMP-9 (E-2): sc-515249**, our highly recommended monoclonal alternatives to BMP-9 (C-16).