SANTA CRUZ BIOTECHNOLOGY, INC.

BMP-4 (N-16): sc-6896

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Bone morphogenic proteins (BMPs) are members of the TGFβ superfamily. BMPs are involved in the induction of cartilage and bone formation. *In vivo* studies have shown that BMP-2 (also designated BMP-2A) and BMP-3 can independently induce cartilage formation. Smad3 association with the TGFβ receptor complex and Smad1 translocation to the nucleus are observed after the addition of BMP-4 (also designated BMP-2B), suggesting that BMP-4 may play a role in activation of the Smad pathway. BMP-5, BMP-6 and BMP-7 all share high sequence homology with BMP-2, indicating that they each may be able to induce cartilage formation. BMP-8 (also designated OP-2) is thought to be involved in early development, as detectable expression has not been found in adult organs.

CHROMOSOMAL LOCATION

Genetic locus: BMP4 (human) mapping to 14q22.2; Bmp4 (mouse) mapping to 14 C1.

SOURCE

BMP-4 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BMP-4 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-6896 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BMP-4 (N-16) is recommended for detection of precursor and mature BMP-4 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).

BMP-4 (N-16) is also recommended for detection of precursor and mature BMP-4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BMP-4 siRNA (h): sc-39744, BMP-4 siRNA (m): sc-39745, BMP-4 siRNA (r): sc-72218, BMP-4 shRNA Plasmid (h): sc-39744-SH, BMP-4 shRNA Plasmid (m): sc-39745-SH, BMP-4 shRNA Plasmid (r): sc-72218-SH, BMP-4 shRNA (h) Lentiviral Particles: sc-39744-V, BMP-4 shRNA (m) Lentiviral Particles: sc-39745-V, and BMP-4 shRNA (r) Lentiviral Particles: sc-72218-V.

Molecular Weight of BMP-4 precursor: 50 kDa.

Molecular Weight of mature BMP-4: 23 kDa.

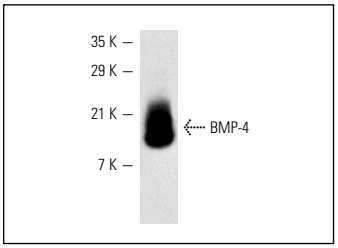
STORAGE

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.

DATA



BMP-4 (N-16): sc-6896. Western blot analysis of human recombinant BMP-4.

SELECT PRODUCT CITATIONS

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3. Karaoz, E., et al. 2010. Protection of rat pancreatic islet function and viability by coculture with rat bone marrow-derived mesenchymal stem cells. Cell Death Dis. 1: e36.
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8. Karaoz, E., et al. 2011. Bone marrow-derived mesenchymal stem cells co-cultured with pancreatic islets display β cell plasticity. J. Tissue Eng. Regen. Med. 5: 491-500.
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