

BMP-5 (L-16): sc-73747

BACKGROUND

Bone morphogenic proteins (BMPs) are members of the TGF β 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 TGF β 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.

REFERENCES

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2. Massague, J. 1990. The transforming growth factor β family. *Ann. Rev. Cell Biol.* 6: 597-641.
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4. Oskaynak, E., et al. 1992. Osteogenic protein-2. A new member of the transforming growth factor β superfamily expressed early in embryogenesis. *J. Biol. Chem.* 267: 25220-25227.
5. Gitelman, S.E., et al. 1994. Recombinant Vgr-1/BMP-6-expressing tumors induce fibrosis and endochondral bone formation *in vivo*. *J. Cell Biol.* 126: 1595-1609.
6. Liu, F., et al. 1996. A human Mad protein acting as a BMP-regulated transcriptional activator. *Nature* 381: 620-623.
7. Zhang, Y., et al. 1996. Receptor-associated Mad homologues synergize as effectors of the TGF β response. *Nature* 383: 168-172.
8. McPherron, A.C., et al. 1997. Regulation of skeletal muscle mass in mice by a new TGF β superfamily member. *Nature* 387: 83-90.

CHROMOSOMAL LOCATION

Genetic locus: BMP5 (human) mapping to 6p12.1.

SOURCE

BMP-5 (L-16) is a mouse monoclonal antibody raised against full length recombinant BMP-5 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} in 1.0 ml 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.

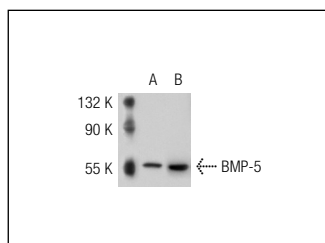
APPLICATIONS

BMP-5 (L-16) is recommended for detection of BMP-5 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for BMP-5 siRNA (h): sc-39746, BMP-5 shRNA Plasmid (h): sc-39746-SH and BMP-5 shRNA (h) Lentiviral Particles: sc-39746-V.

Molecular Weight of BMP-5: 52 kDa.

DATA



BMP-5 (L-16): sc-73747. Western blot analysis of BMP-5 expression in non-transfected: sc-117752 (A) and human BMP-5 transfected: sc-114151 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Deng, T., et al. 2015. Differential expression of bone morphogenetic protein 5 in human lung squamous cell carcinoma and adenocarcinoma. *Acta Biochim. Biophys. Sin.* 47: 557-563.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

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