BMP2K (NQ-C10): sc-134284

BACKGROUND

The phosphorylation and dephosphorylation of proteins on serine and threonine residues is an essential means of regulating a broad range of cellular functions in eukaryotes, including cell division, homeostasis and apoptosis. A group of proteins that are intimately involved in this process are the serine/threonine (Ser/Thr) protein kinases. BMP2K (BMP2 inducible kinase), also known as BIKE, is a 1,116 amino acid nuclear protein that contains one protein kinase domain and belongs to the Ser/Thr protein kinase family. Thought to be involved in osteoblast differentiation, BMP2K catalyzes the ATP-dependent phosphorylation of bone morphogenic proteins (BMPs); proteins that are essential for proper cartilage and bone formation. Via its catalytic activity, BMP2K may play a role in signaling pathways that mediate bone growth and cellular differentiation. Three isoforms of BMP2K exist due to alternative splicing events.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: BMP2K (human) mapping to 4q21.21.

SOURCE

BMP2K (NO-C10) is a mouse monoclonal antibody raised against recombinant BMP2K protein of human origin.

PRODUCT

Each vial contains 200 µl ascites containing IgG with < 0.1% sodium azide.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

APPLICATIONS

BMP2K (NQ-C10) is recommended for detection of BMP2K of human origin by Western Blotting (starting dilution: to be determined by researcher, dilution range 1:100-1:5000), immunoprecipitation [1-2 µl per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution to be determined by researcher, dilution range 1:30-1:5000).

Suitable for use as control antibody for BMP2K siRNA (h): sc-89069, BMP2K shRNA Plasmid (h): sc-89069-SH and BMP2K shRNA (h) Lentiviral Particles: sc-89069-V.

Molecular Weight of BMP2K: 126 kDa.

Positive Controls: BMP2K (h): 293T Lysate: sc-172560 or Hep G2 cell lysate: sc-2227.

DATA

BMP2K (NQ-C10) sc-134284. Western blot analysis of BMP2K expression in non-transfected: sc-117752 (A) and human BMP2K transfected: sc-172560 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS


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.