MEPE (C-4): sc-377035

BACKGROUND
MEPE (matrix extracellular phosphoglycoprotein), also known as OF45 (osteoblast/osteocyte factor 45), is a 525 amino acid extracellular matrix protein. Expressed in osteocytes and brain, MEPE is a regulator of bone metabolism that is thought to mediate mineralization and demineralization within the osteocyte microenvironment. MEPE contains an RGD cell-attachment motif and shares molecular similarities with several dentin-bone extracellular matrix RGD-containing phosphoglycoproteins, including OPN (osteopontin) and DSP (dentin sialophosphoprotein). Via its ability to control bone mineralization, MEPE is associated with various developmental events such as skeletogenesis, bone regeneration and odontogenesis. MEPE is secreted in hypophosphatemic osteomalacia tumors, suggesting a possible role in the pathophysiology of bone-related cancers. Defects in the gene encoding MEPE may be associated with osteomalacia, an adult form of the childhood disease known as rickets that is caused by inadequate bone mineralization.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: MEPE (human) mapping to 4q22.1; Mepe (mouse) mapping to 5 E5.

SOURCE
MEPE (C-4) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of MEPE of rat origin.

PRODUCT
Each vial contains 200 µg IgG2k kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MEPE (C-4) is available conjugated to agarose (sc-377035 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377035 HRP), 200 µg/ml, for WB, IHC(κ) and ELISA; to either phycoerythrin (sc-377035 PE), fluorescein (sc-377035 FITC), Alexa Fluor® 488 (sc-377035 AF488), Alexa Fluor® 546 (sc-377035 AF546), Alexa Fluor® 594 (sc-377035 AF594) or Alexa Fluor® 647 (sc-377035 AF647), 200 µg/ml, for WB (RGB), IF, IHC(κ) and FCM; and to either Alexa Fluor® 680 (sc-377035 AF680) or Alexa Fluor® 790 (sc-377035 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE
Store at 4° C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS
MEPE (C-4) is recommended for detection of MEPE of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for MEPE siRNA (h): sc-75773, MEPE siRNA (m): sc-75774, MEPE shRNA Plasmid (h): sc-75773-SH, MEPE shRNA Plasmid (m): sc-75774-SH, MEPE shRNA (h) Lentiviral Particles: sc-75773-V and MEPE shRNA (m) Lentiviral Particles: sc-75774-V.

Molecular Weight of MEPE: 57 kDa.

Positive Controls: C6 whole cell lysate: sc-364373, HeLa whole cell lysate: sc-2200 or Saos-2 cell lysate: sc-2235.

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended:

DATA
MEPE (C-4): sc-377035: Western blot analysis of MEPE expression in SK-N-SH (A), Hep G2 (B), HeLa (C), C6 (D) and Saos-2 (E) whole cell lysates.

SELECT PRODUCT CITATIONS

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