Mouse MEPE/OF45 Alexa Fluor® 700-conjugated Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF6150N
100 µg

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse MEPE/OF45 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human MEPE/OF45 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse MEPE/OF45 Ala17-Asp433 Accession # AAK70342
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

MEPE (matrix extracellular phosphoglycoprotein; also OF45) is a 56-58 kDa member of the SIBLING protein family. It is expressed by osteocytes, osteoblasts, odontoblasts and chondrocytes. MEPE is found both intra- and extracellularly. Within the cell, it binds to CHK1. This protects CHK1 from degradation, and the cell from DNA damage. Extracellularly, it binds to Phex, which protects it from cathepsin B proteolysis. Undegraded, it promotes bone vascularization and blocks bone resorption. Following cleavage after Arg410 (in mouse), a 2 kDa ASARM fragment is generated that, when phosphorylated, blocks mineralization. Mature mouse MEPE is 417 amino acids (aa) in length. It contains an RGD motif and ASARM domain (aa 416-433). In addition to its a 57 kDa form, 70 kDa, 42-45 kDa and 30-35 kDa forms of mouse MEPE have been reported. Whether they are cleavage forms or products of glycosylation is unclear. Over aa 147-433, mouse MEPE shares 77% and 57% aa identity with rat and human MEPE, respectively.

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