

Mouse MEPE/OF45 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG Catalog Number: AF6150

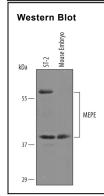
DESCRIPTION		
Species Reactivity	Mouse	
Specificity	Detects mouse MEPE/OF45 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human MEPE/OF45 is observed.	
Source	Polyclonal Sheep IgG	
Purification	Antigen Affinity-purified	
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse MEPE/OF45 Ala17-Asp433 Accession # AAK70342	
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.	

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.

	Recommended Concentration	Sample
Western Blot	1.0 μg/mL	See Below

DATA



Detection of Mouse MEPE/OF45 by Western Blot. Western blot shows lysates of ST-2 mouse bone marrow-derived stromal cell line and mouse embryo tissue. PVDF membrane was probed with 1 µg/mL of Sheep Anti-Mouse MEPE/OF45 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6150) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). Specific bands were detected for MEPE/OF45 at approximately 58 and 42 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
	*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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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