

DESCRIPTION

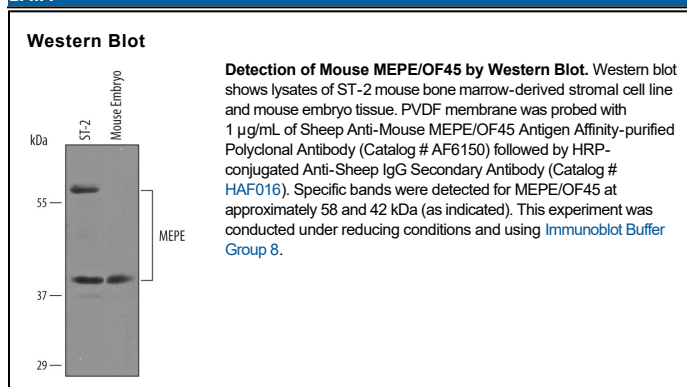
Species Reactivity	Mouse
Specificity	Detects mouse MEPE/OF45 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human MEPE/OF45 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived 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



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. <ul style="list-style-type: none"> 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.