Anti-MMP-9 Antibody [10A1]

EM1801-22

Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human
Applications:	ELISA
Clone number:	10A1

Description: Matrix metallopeptidase 9 (MMP-9), also known as 92 kDa type IV collagenase, 92 kDa gelatinase or gelatinase B (GELB), is a matrixin, a class of enzymes that belong to the zinc-metalloproteinases family involved in the degradation of the extracellular matrix. In humans the MMP9 gene encodes for a signal peptide, a propeptide, a catalytic domain with inserted three repeats of fibronectin type II domain followed by a C-terminal hemopexin-like domain.MMP9, along with elastase, appears to be a regulatory factor in neutrophil migration across the basement membrane.MMP9 plays several important functions within neutrophil action, such as degrading extracellular matrix, activation of IL-1β, and cleavage of several chemokines. In a mouse model, MMP9 deficiency resulted in resistance to endotoxin shock, suggesting that MMP9 is important in sepsis.

Immunogen: Recombinant protein with Human MMP-9 aa 270-400.

Positive control: Recombinant protein with Human MMP-9.

Subcellular location: Secreted.

Database links: SwissProt: P14780 Human

Recommended Dilutions:

ELISA Use at an assay dependent concentration.

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein G affinity purified.

Images

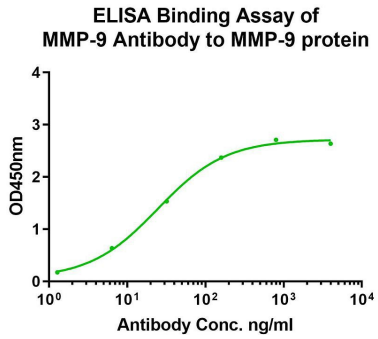

Fig1: Indirect ELISA analysis of MMP-9 was performed by coating wells of a 96-well plate with 50 µL per well of MMP-9 diluted in carbonate/bicarbonate buffer, at a concentration of 5 µg/mL overnight at 4℃. Wells of the plate were washed, blocked with 1%BSA blocking buffer for 1 hour at 37℃, and incubated with 50 µL per well of MMP-9 monoclonal antibody serial diluted starting from a concentration of 4µg/mL for 45 minutes at 37℃. The plate was washed and incubated with 50 µL per well of an HRP-conjugated goat anti-mouse IgG secondary antibody at a dilution of 1/80,000 for 30 minutes at 37℃. Detection was performed using an Ultra TMB Substrate for 10 minutes at 37℃ in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

Background References

1. Park JH et al. Promoting Wound Healing Using Low Molecular Weight Fucoidan in a Full-Thickness Dermal Excision Rat Model. Mar Drugs 15:(4) pii: E112. (2017).
2. Chen X et al. The role of miR-497-5p in myofibroblast differentiation of LR-MSCs and pulmonary fibrogenesis. Sci Rep 7:40958 (2017).