Mouse KLK1/Kallikrein 1 ELISA Kit PicoKine®

CATALOG NO: EK0465 LOT NO: LOT#\_\_\_\_\_\_\_

INTENDED USE

For the quantitation of Human MMP9 concentrations in cell culture supernatants, serum, plasma (heparin) , saliva and urine.

BACKGROUND

The 92-kD type IV collagenase is also known as 92-kD gelatinase, type V collagenase, gelatinase B, or matrix metalloproteinase-9 (MMP9). The 72- and 92-kDa type IV collagenases are members of a group of secreted zinc metalloproteases. The matrix metalloproteinases (MMPs) are able to degrade the extracellular matrix and allow angiogenesis and tumor invasion. Gelatinase B, a matrix metalloproteinase that has proteolytic activity against connective tissue proteins, has been suggested to be important in the connective tissue remodeling processes associated with atherogenesis and plaque rupture. MMP-9 is predominantly expressed in neutrophils, macrophages, and mast cells, rather than in oncogene-positive neoplastic cells. The polymorphism of MMP-9 acts as a genetic factor for the development of smoking-induced pulmonary emphysema. The standard product used in this kit is recombinant human MMP-9 with the molecular mass of 95KDa. The detected MMP-9 includes zymogen and active enzyme. 75 Publications Citing This Product PubMed ID: 10.3892/mmr.2019.10330, Calcium‑sensing receptor promotes high glucose‑induced myocardial fibrosis via upregulation of the TGF‑beta1/Smads pathway in cardiac fibroblasts PubMed ID: 10.1161/STROKEAHA.115.011230, Combining Growth Factor and Bone Marrow Cell Therapy Induces Bleeding and Alters Immune Response After Stroke in Mice PubMed ID: 10.1186/s12931-020-01426-9, Shp2 positively regulates cigarette smoke-induced epithelial mesenchymal transition by mediating MMP-9 production

PRINCIPLE OF THE ASSAY

The Innovative Research Human MMP9 Pre-Coated ELISA (Enzyme-Linked Immunosorbent Assay) kit is a solid-phase immunoassay specially designed to measure Human MMP9 with a 96-well strip plate that is pre-coated with antibody specific for MMP9. The detection antibody is a biotinylated antibody specific for MMP9. The capture antibody is polyclonal antibody from goat and the detection antibody is polyclonal antibody from goat. The kit includes Human MMP9 protein as standards. To measure Human MMP9, add standards and samples to the wells, then add the biotinylated detection antibody. Wash the wells with PBS or TBS buffer, and add Avidin-Biotin-Peroxidase Complex (ABC-HRP). Wash away the unbounded ABC-HRP with PBS or TBS buffer and add TMB. TMB is an HRP substrate and will be catalyzed to produce a blue color product, which changes into yellow after adding the acidic stop solution. The absorbance of the yellow product at 450nm is linearly proportional to Human MMP9 in the sample. Read the absorbance of the yellow product in each well using a plate reader, and benchmark the sample wells' readings against the standard curve to determine the concentration of Human MMP9 in the sample.

ASSAY PROTOCOL NOTES