

Human MMP2 ELISA Kit ab100606

★★★★★ [1 Abreviews](#) [21 References](#) [2 图像](#)

概述

产品名称	人MMP2 ELISA试剂盒
检测方法	Colorimetric
样品类型	Cell culture supernatant, Serum, Plasma
检测类型	Sandwich (quantitative)
灵敏度	< 3.5 ng/ml
范围	3.3 ng/ml - 800 ng/ml
回收率	81 %

特定样本回收率

样品类型	平均%	范围
Cell culture supernatant	77.25	69% - 92%
Serum	81.27	70% - 93%
Plasma	84.53	72% - 95%

实验步骤 Multiple steps standard assay

种属反应性 与反应: Human

产品概述 Abcam's Human MMP2 ELISA (Enzyme-Linked Immunosorbent Assay) kit is an *in vitro* enzyme-linked immunosorbent assay for the quantitative measurement of Human MMP2 in serum, plasma, and cell culture supernates. (Collect plasma using heparin as an anticoagulant. EDTA and Citrate are not recommended as anticoagulants for use in this assay due to their chelating properties).

This assay employs an antibody specific for Human MMP2 coated on a 96-well plate. Standards and samples are pipetted into the wells and MMP2 present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-Human MMP2 antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of MMP2 bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

说明 Optimisation may be required with urine samples.

平台 Microplate

性能

存放说明

Store at -20°C. Please refer to protocols.

组件	1 x 96 tests
20X Wash Buffer	1 x 25ml
440X HRP-Streptavidin Concentrate	1 x 200µl
5X Assay Diluent	1 x 15ml
Biotinylated anti-Human MMP2	2 vials
MMP2 Microplate (12 x 8 wells)	1 unit
Recombinant Human MMP2 Standard (lyophilized)	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

功能

Ubiquitous metalloproteinase that is involved in diverse functions such as remodeling of the vasculature, angiogenesis, tissue repair, tumor invasion, inflammation, and atherosclerotic plaque rupture. As well as degrading extracellular matrix proteins, can also act on several nonmatrix proteins such as big endothelial 1 and beta-type CGRP promoting vasoconstriction. Also cleaves KISS at a Gly-Leu bond. Appears to have a role in myocardial cell death pathways. Contributes to myocardial oxidative stress by regulating the activity of GSK3beta. Cleaves GSK3beta in vitro. PEX, the C-terminal non-catalytic fragment of MMP2, possesses anti-angiogenic and anti-tumor properties and inhibits cell migration and cell adhesion to FGF2 and vitronectin. Ligand for integrin/beta3 on the surface of blood vessels.

组织特异性

Produced by normal skin fibroblasts. PEX is expressed in a number of tumors including gliomas, breast and prostate.

疾病相关

Defects in MMP2 are the cause of Torg-Winchester syndrome (TWS) [MIM:259600]; also known as multicentric osteolysis nodulosis and arthropathy (MONA). TWS is an autosomal recessive osteolysis syndrome. It is severe with generalized osteolysis and osteopenia. Subcutaneous nodules are usually absent. Torg-Winchester syndrome has been associated with a number of additional features including coarse face, corneal opacities, patches of thickened, hyperpigmented skin, hypertrichosis and gum hypertrophy. However, these features are not always present and have occasionally been observed in other osteolysis syndromes.

序列相似性

Belongs to the peptidase M10A family.
Contains 3 fibronectin type-II domains.
Contains 4 hemopexin-like domains.

结构域

The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme.

翻译后修饰

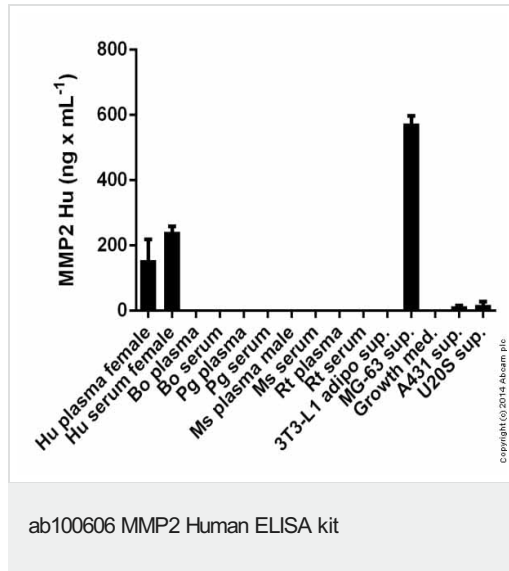
Phosphorylation on multiple sites modulates enzymatic activity. Phosphorylated by PKC in vitro. The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-MMP3). Autocatalytic

cleavage in the C-terminal produces the anti-angiogenic peptide, PEX. This processing appears to be facilitated by binding integrin α /beta3.

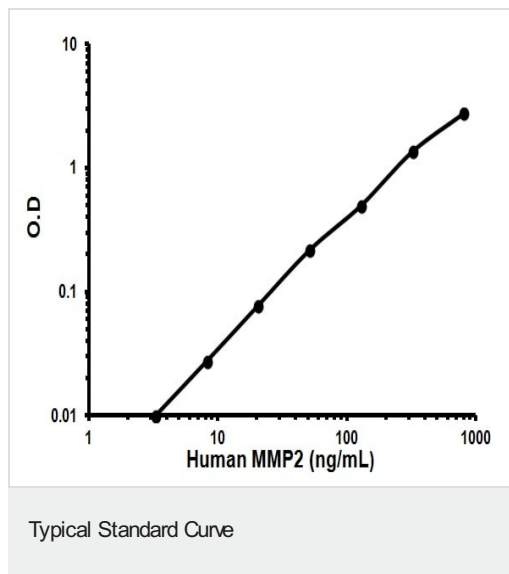
细胞定位

Secreted > extracellular space > extracellular matrix. Membrane. Nucleus. Colocalizes with integrin α V/ β 3 at the membrane surface in angiogenic blood vessels and melanomas. Found in mitochondria, along microfibrils, and in nuclei of cardiomyocytes.

图片



MMP2 measured in biological fluids showing quantity (ng) per mL of tested sample



Representative Standard Curve using ab100606.

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