



Product datasheet

Human MMP13 ELISA Kit ab100605

★★★★★ 1 Abreviews 19 References 2 Images

Overview

Product name	Human MMP13 ELISA Kit				
Detection method	Colorimetric				
Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	Overall				< 10%
	Inter-assay				
	Sample	n	Mean	SD	CV%
	Overall				< 12%
Sample type	Cell culture supernatant, Plasma				
Assay type	Sandwich (quantitative)				
Sensitivity	< 6 pg/ml				
Range	8.23 pg/ml - 6000 pg/ml				
Recovery	93 %				
	Sample specific recovery				
	Sample type		Average %		Range
	Cell culture supernatant		94.72		84% - 103%
	Plasma		93.13		83% - 103%
Assay duration	Multiple steps standard assay				
Species reactivity	Reacts with: Human				
Product overview	Abcam's MMP13 Human ELISA (Enzyme-Linked Immunosorbent Assay) kit is an <i>in vitro</i> enzyme				

This assay employs an antibody specific for Human MMP13 coated on a 96-well plate. Standards and samples are pipetted into the wells and MMP13 present in a sample is bound to the wells by

the immobilized antibody. The wells are washed and biotinylated anti-Human MMP13 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 MMP13 bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.

The kit detects total MMP-13 levels.

We have not been able to detect endogenous Human MMP13 in normal serum with ab100605, only in serum spiked with Human MMP13.

#### Notes

Optimisation may be required with urine samples.

#### Platform

Microplate

#### Properties

#### Storage instructions

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

Components	1 x 96 tests
20X Wash Buffer	1 x 25ml
5X Assay Diluent	1 x 15ml
700X HRP-Streptavidin Concentrate	1 x 200µl
Biotinylated anti-Human MMP13	2 vials
MMP13 Microplate (12 x 8 wells)	1 unit
Recombinant Human MMP13 Standard (lyophilized)	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

#### Function

Degrades collagen type I. Does not act on gelatin or casein. Could have a role in tumoral process.

#### Tissue specificity

Seems to be specific to breast carcinomas.

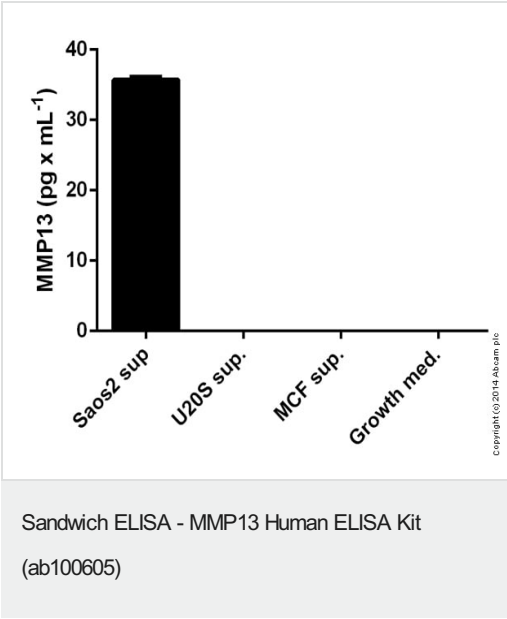
#### Involvement in disease

Defects in MMP13 are the cause of spondyloepimetaphyseal dysplasia Missouri type (SEMD-MO) [MIM:602111]. A bone disease characterized by moderate to severe metaphyseal changes, mild epiphyseal involvement, rhizomelic shortening of the lower limbs with bowing of the femora and/or tibiae, coxa vara, genu varum and pear-shaped vertebrae in childhood. Epimetaphyseal changes improve with age.

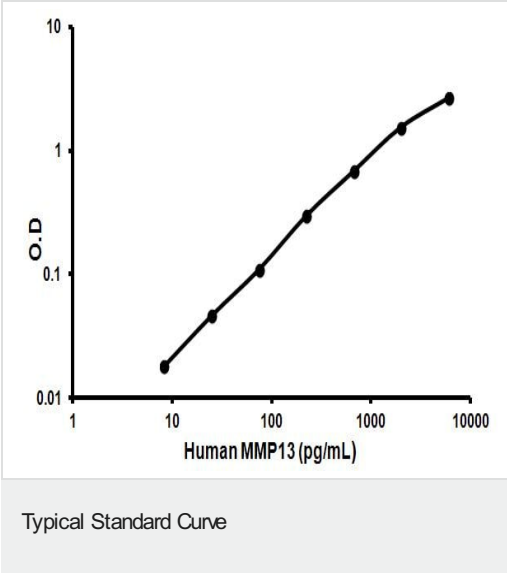
Defects in MMP13 are the cause of metaphyseal anadysplasia type 1 (MANDP1) [MIM:602111]. Metaphyseal anadysplasia consists of an abnormal bone development characterized by severe skeletal changes that, in contrast with the progressive course of most other skeletal dysplasias, resolve spontaneously with age. Clinical characteristics are evident from the first months of life and include slight shortness of stature and a mild varus deformity of the legs. Patients attain a normal stature in adolescence and show improvement or complete resolution of varus deformity of the legs and rhizomelic micromelia.

<b>Sequence similarities</b>	Belongs to the peptidase M10A family. Contains 4 hemopexin-like domains.
<b>Domain</b>	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.
<b>Cellular localization</b>	Secreted > extracellular space > extracellular matrix.

Images



MMP13 measured in cell supernatanses showing quantity (pg) per mL of tested sample



Representative standard curve using ab100605

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