

Datasheet for ABIN6730855

MMP13 IQ-ELISA Kit



[Go to Product page](#)

Overview

Quantity:	96 tests
Target:	MMP13
Reactivity:	Human
Method Type:	DNA-Binding ELISA
Detection Range:	0.384 pg/mL - 6000 pg/mL
Minimum Detection Limit:	0.384 pg/mL
Application:	ELISA

Product Details

Purpose:	Human Immunoquantitative (PCR-Based) MMP-13 ELISA Kit for cell culture supernatants, plasma, and serum samples.
Sample Type:	Cell Culture Supernatant, Plasma, Serum
Analytical Method:	Quantitative
Detection Method:	qPCR
Sensitivity:	0.384 pg/mL
Characteristics:	The Immuno Quantitative Enzyme Linked ImumunoSorbent Assay (IQELISA™) is an innovative new assay that combines the specificity and ease of use of an ELISA with the sensitivity of real-time PCR. This results in an assay that is simultaneously familiar and cutting edge and enables the use of lower sample volumes while also providing more sensitivity. The Human MMP-13 IQELISA™ Kit is a modified ELISA assay with high sensitivity qPCR readout for the quantitative measurement of Human MMP-13 in serum, plasma, and cell culture supernatants. This assay

Product Details

employs an antibody specific for Human MMP-13 coated on a 96-well PCR plate. Standards and samples are pipetted into the wells and MMP-13 present in a sample is bound to the wells by the immobilized antibody. The wells are washed and a detection affinity molecule is added to the plates. After washing away unbound detection affinity molecule, primers and a PCR master mix are added to the wells and data is collected using qPCR. Ct values obtained from the qPCR are then used to calculate the amount of antigen contained in each sample, where lower Ct values indicate a higher concentration of antigen.

Components:

- MMP-13 Microplate (Item A): 96 well PCR plate coated with anti-Human MMP-13
- Wash Buffer I Concentrate (20x) (Item B): 25 ml of 20x concentrated solution
- Standards (Item C): 2 vials of recombinant Human MMP-13
- Assay Diluent A (Item D): 30 ml diluent buffer, 0.09% sodium azide as preservative. For Standard/Sample (serum/plasma) diluent
- Assay Diluent B (Item E): 15 ml of 5x concentrated buffer. For Standard/Sample (cell culture medium/urine) diluent
- Detection Affinity Reagent for MMP-13 (Item F): 2 vials of a 4x concentrated solution of anti-Human MMP-13 affinity reagent
- IQELISA Detection Reagent (Item G): 1.4ml of a 10x concentrated stock
- Primer Solution (Item I): 1.7 ml vial
- PCR Master Mix (Item J): 1.2 ml vial
- PCR Preparation buffer (Item K): 1 ml vial of 10x concentrated buffer
- Final Wash Buffer (Item L): 10ml vial of 10x concentrated buffer

Material not included:

- Real-time PCR instrument, Bio-Rad recommended
- Precision pipettes to deliver 2 µL to 1 mL volumes
- Adjustable 1-25 mL pipettes for reagent preparation
- 100 mL and 1 liter graduated cylinders
- Absorbent paper
- Distilled or deionized water
- Log-log graph paper or computer and software for data analysis
- Tubes to prepare standard or sample dilutions
- Heating block or water bath capable of 80°C

Target Details

Target:	MMP13
Alternative Name:	MMP-13 (MMP13 Products)
Gene ID:	4322
UniProt:	P45452

Application Details

Application Notes: The Immuno-Quantitative ELISA (IQELISA) kits are an innovative assay platform that combines the specificity and ease of use of an ELISA with the sensitivity of real-time PCR. This results in an assay that is simultaneously familiar and cutting edge and enables the use of only 1/10th the sample volume while also providing 10x more sensitivity than a traditional ELISA.

Comment:

Features:

- Excellent for follow up/confirmation of antibody array data
- Pre-coated 96 well plate
- Strip plate format minimizes waste
- Complete kit includes all necessary reagents
- 10x more sensitive than ELISA
- Reproducible and reliable
- Optimized for serum, plasma, urine and cell culture medium
- 1/10th the sample volume of an ELISA

Research Applications:

- Detection of quantitative protein levels in biological fluids
 - Validation of antibody array results
 - Validation of biomarker discovery studies
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Plate: Pre-coated

Protocol:

1. Prepare all reagents, samples and standards as instructed
2. Add 25 µL standard or sample to each well. Incubate for 2.5 hours at room temperature or overnight at 4°C
3. Add 25 µL detection affinity reagent to each well. Incubate 1 hour at room temperature
4. Add 25µL of IQELISA Detection Reagent to each well. Incubate 1 hour
5. Add 15µL Primer solution 10µL of PCR master mix to each well
6. Run real-time PCR

Reagent Preparation: Recommended Dilution for serum and plasma samples: 2 - 10 fold

Restrictions: For Research Use only

Handling

Storage Comment: May be stored for up to 6 months at 2° to 8°C from the date of shipment. Standard (recombinant protein) should be stored at -20°C or -80°C (recommended at -80°C) after reconstitution. Opened PCR plate or reagents may be stored for up to 1 month at 2°C to 8°C.

Expiry Date: 6 months
