Datasheet for ABIN1672745

MMP7 ELISA Kit

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Overview

Quantity:	96 tests
Target:	MMP7
Binding Specificity:	AA 18-267
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	156-10000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Human MMP-7
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Saliva, Urine
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: L18-K267
Specificity:	Expression system for standard: NSO Immunogen sequence: L18-K267
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<6pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	MMP7
Alternative Name:	MMP7 (MMP7 Products)
Background:	Protein Function: Degrades casein, gelatins of types I, III, IV, and V, and fibronectin. Activates procollagenase. . Background: Matrix metalloproteinase-7(MMP-7) previously called putative metalloproteinase I(PUMP1) or matrilysin. The PUMP1 gene has been identified through studies of collagenase-related connective-tissue-degrading metalloproteinases produced by human tumors. The PUMP I protein has 267 amino acids and is significantly shorter than stromelysin or collagenase(477 and 469 amino acids, respectively). Matrix metalloproteinases play a crucial role in tumor invasion and metastasis. Matrilysin, a member of the matrix metalloproteinase family, is structurally different from the other matrix metalloproteinases by virtue of the absence of a conserved COOH-terminal protein domain. In addition, matrilysin mRNA is regulated in a specific and distinct manner in normal and malignant tissues. Matrilysin has been shown to correlate with nodal or distant metastasis in colorectal carcinomas, however, its implication in early invasive colorectal carcinomas has not been determined.1 Matrilysin is also a mediator of pulmonary fibrosis and a potential therapeutic target. The standard product used in this kit is recombinant human MMP-7, consisting of 250 amino acids with the molecular mass of 28KDa. The detected MMP-7 includes zymogen and active enzyme. Synonyms: Matrilysin,3.4.24.23,Matrin,Matrix metalloproteinase-7,MMP-7,Pump-1 protease,Uterine metalloproteinase,MMP7,MPSL1, PUMP1, Full Gene Name: Matrilysin Cellular Localisation: Secreted, extracellular space, extracellular matrix.
Gene ID:	4316
UniProt:	P09237
Pathways:	Production of Molecular Mediator of Immune Response

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.
Comment:	Sequence similarities: Belongs to the peptidase M10A family.
Plate:	Pre-coated
Protocol:	human MMP-7 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for MMP-7 has been precoated onto 96-well plates. Standards(NSO, L18-K267) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for MMP-7 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human MMP-7 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL human MMP-7 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of human cell culture supernates, serum, plasma(heparin), saliva or urine to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each human MMP-7 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 1.37, Standard deviation: 0.073, CV(%): 5.3 • Sample 2: n=16, Mean(ng/ml): 4.75, Standard deviation: 0.2, CV(%): 4.2 • Sample 3: n=16, Mean(ng/ml): 6.34, Standard deviation: 0.241, CV(%): 3.8, • Sample 1: n=24, Mean(ng/ml): 1.25, Standard deviation: 0.078, CV(%): 6.2 • Sample 2: n=24, Mean(ng/ml): 4.81, Standard deviation: 0.284, CV(%): 5.9 • Sample 3: n=24, Mean(ng/ml): 6.53, Standard deviation: 0.438, CV(%): 6.7
Restrictions:	For Research Use only

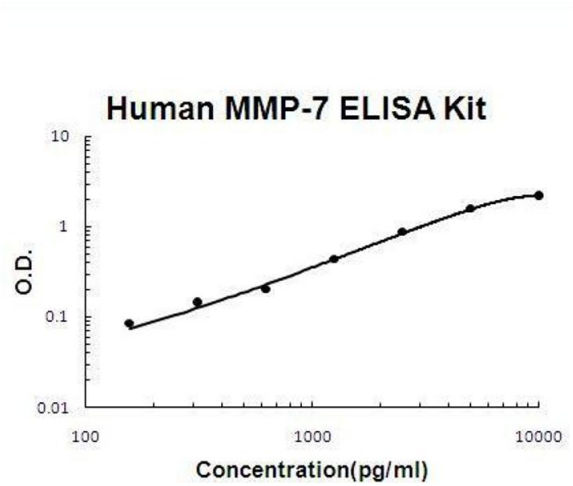
Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Publications

Product cited in:	Xu, Feng, Wang, Zhu, Lin, Lou, Xiang, He, Zheng, Tang, Zuo: "Phytoestrogen calycosin-7-O-?-D-glucopyranoside ameliorates advanced glycation end products-induced HUVEC damage." in: **Journal of cellular biochemistry**, Vol. 112, Issue 10, pp. 2953-65, (2011) (PubMed).

Images



ELISA

Image 1. Human MMP-7 PicoKine ELISA Kit standard curve