Datasheet for ABIN2859213

MMP8 ELISA Kit

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Overview

Quantity:	96 tests
Target:	MMP8
Binding Specificity:	AA 21-466
Reactivity:	Rat
Method Type:	Sandwich ELISA
Detection Range:	156-10.000 pg/mL
Minimum Detection Limit:	156 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Rat MMP-8
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: L21-P466
Specificity:	Expression system for standard: NSO Immunogen sequence: L21-P466
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity:	<10pg/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:	MMP8
Alternative Name:	MMP8 (MMP8 Products)
Background:	Protein Function: Can degrade fibrillar type I, II, and III collagens. Background: Matrix metalloproteinase 8(MMP8) also called neutrophil collagenase. Neutrophil collagenase, a member of the family of matrix metalloproteinases, is distinct from the collagenase of skin fibroblasts and synovial cells in substrate specificity and immunologic crossreactivity. MMP8, an enzyme that degrades fibrillar collagens imparting strength to the fetal membranes, is expressed by leukocytes and chorionic cytotrophoblast cells. The human neutrophil collagenase(HNC) cDNA clone has been sequenced and shown to encode a 467-residue protein. Neutrophil collagenase has been found to possess 57 % identity with the deduced protein sequence for fibroblast collagenase with 72 % chemical similarity. Certain regions of the molecule, including the putative zinc-binding region, are highly conserved. When compared with the published sequence for fibroblast collagenase, neutrophil collagenase contains four additional sites for glycosylation. The standard product used in this kit is natural, isolating from human MMP-8. The detected MMP-8 includes zymogen and active enzyme. Synonyms: Neutrophil collagenase,3.4.24.34,Matrix metalloproteinase-8,MMP-8,Mmp8, Full Gene Name: Neutrophil collagenase Cellular Localisation: Cytoplasmic granule. Secreted, extracellular space, extracellular matrix . Stored in intracellular granules.
Gene ID:	63849
UniProt:	O88766

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.

Application Details

	Tissue Specificity: Can degrade fibrillar type I, II, and III collagens.
Plate:	Pre-coated
Protocol:	rat MMP-8 ELISA Kit is based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for MMP-8 has been precoated onto 96-well plates. Standards(NSO, L21-P466) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for MMP-8 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex is added and unbound conjugates are washed away with PBS or TBS buffer. HRP substrate TMB are used to visualize HRP enzymatic reaction. TMB is 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 rat MMP-8 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 10,000pg/mL, 5000pg/mL, 2500pg/mL, 1250pg/mL, 625pg/mL, 312pg/mL, 156pg/mL rat MMP-8 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 rat cell culture supernates, serum or plasma(heparin) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each rat MMP-8 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 486, Standard deviation: 19.93, CV(%): 4.1 • Sample 2: n=16, Mean(pg/ml): 1780, Standard deviation: 112.14, CV(%): 6.3 • Sample 3: n=16, Mean(pg/ml): 6826, Standard deviation: 354.95, CV(%): 5.2, • Sample 1: n=24, Mean(pg/ml): 561, Standard deviation: 27.49, CV(%): 4.9 • Sample 2: n=24, Mean(pg/ml): 2175, Standard deviation: 158.78, CV(%): 7.3 • Sample 3: n=24, Mean(pg/ml): 7203, Standard deviation: 468.2, CV(%): 6.5
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

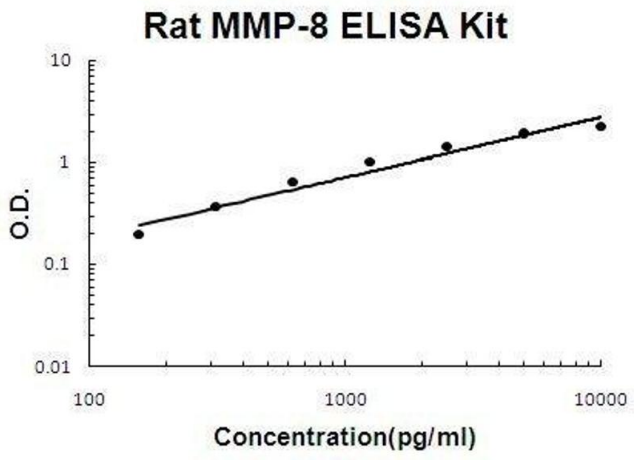
Publications

Product cited in:	Motawi, Mahdy, El-Sawalhi, Ali, El-Telbany: "Serum levels of chemerin, apelin, vaspin, and

Publications

omentin-1 in obese type 2 diabetic Egyptian patients with coronary artery stenosis." in: **Canadian journal of physiology and pharmacology**, Vol. 96, Issue 1, pp. 38-44, (2018) (PubMed).

Images



ELISA

Image 1. Rat MMP-8 PicoKine ELISA Kit standard curve