Datasheet for ABIN1889329

TIMP2 ELISA Kit

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Overview

Quantity:	96 tests
Target:	TIMP2
Binding Specificity:	AA 27-220
Reactivity:	Mouse
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 Mouse TIMP-2
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: NSO Immunogen sequence: C27-P220
Specificity:	Expression system for standard: NSO Immunogen sequence: C27-P220
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:	TIMP2
Alternative Name:	TIMP2 (TIMP2 Products)
Background:	Protein Function: Complexes with metalloproteinases (such as collagenases) and irreversibly inactivates them by binding to their catalytic zinc cofactor. Background: TIMP-2 gen is encoded by 5 exons spanning 83 kb of genomic DNA. TIMP-2 is 83 kilobase pairs (kb) long with exon-intron splicing sites located in preserved positions among the three members of the TIMP family. The gene for tissue inhibitor of metalloproteinases-2 is localized on human chromosome arm 17q25. TIMP-2 abrogates angiogenic factor-induced endothelial cell proliferation in vitro and angiogenesis in vivo independent of MMP inhibition. The standard product used in this kit is recombinant human TIMP-2 with the molecular mass of 22Kda and 194 amino acid. Synonyms: Metalloproteinase inhibitor 2,Tissue inhibitor of metalloproteinases 2,TIMP-2,Timp2,Timp-2, Full Gene Name: Metalloproteinase inhibitor 2 Cellular Localisation: Secreted.
Gene ID:	21858
UniProt:	P25785
Pathways:	cAMP Metabolic Process

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 protease inhibitor I35 (TIMP) family. Tissue Specificity: Detected in testis, retina, hippocampus and cerebral cortex. .
Plate:	Pre-coated

Application Details

Protocol:	mouse TIMP-2 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for TIMP-2 has been precoated onto 96-well plates. Standards(NSO, C27-P220) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for TIMP-2 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 mouse TIMP-2 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 mouse TIMP-2 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 mouse cell culture supernatants, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse TIMP-2 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 1.24, Standard deviation: 0.056, CV(%): 4.5 • Sample 2: n=16, Mean(ng/ml): 3.85, Standard deviation: 0.146, CV(%): 3.8 • Sample 3: n=16, Mean(ng/ml): 6.85, Standard deviation: 0.219, CV(%): 3.2, • Sample 1: n=24, Mean(ng/ml): 1.32, Standard deviation: 0.088, CV(%): 6.7 • Sample 2: n=24, Mean(ng/ml): 3.96, Standard deviation: 0.245, CV(%): 6.2 • Sample 3: n=24, Mean(ng/ml): 6.88, Standard deviation: 0.516, CV(%): 7.5
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:	Papakonstantinou, Karakiulakis, Batzios, Savic, Roth, Tamm, Stolz: "Acute exacerbations of COPD are associated with significant activation of matrix metalloproteinase 9 irrespectively of airway obstruction, emphysema and infection." in: **Respiratory research**, Vol. 16, pp. 78, (2016)

Publications

(PubMed).

Gishto, Farrell, Kothapalli: "Tuning composition and architecture of biomimetic scaffolds for enhanced matrix synthesis by murine cardiomyocytes." in: **Journal of biomedical materials research. Part A**, Vol. 103, Issue 2, pp. 693-708, (2015) (PubMed).

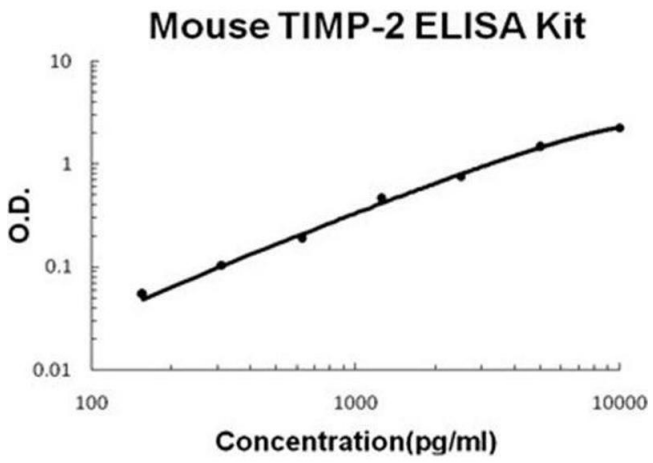
Cavdar, Ozbal, Celik, Ergur, Guneli, Ural, Camsari, Guner: "The effects of alpha-lipoic acid on MMP-2 and MMP-9 activities in a rat renal ischemia and re-perfusion model." in: **Biotechnic & histochemistry : official publication of the Biological Stain Commission**, Vol. 89, Issue 4, pp. 304-14, (2014) (PubMed).

Xu, Ling, Zhu, Fan, Zhang: "The effect of 2,3,4',5-tetrahydroxystilbene-2-0-?-D glucoside on neointima formation in a rat artery balloon injury model and its possible mechanisms." in: **European journal of pharmacology**, Vol. 698, Issue 1-3, pp. 370-8, (2013) (PubMed).

Kim, Lee, Choi, Yoo, Yang: "Implication of MMP-9 and urokinase plasminogen activator (uPA) in the activation of pro-matrix metalloproteinase (MMP)-13." in: **Rheumatology international**, Vol. 32, Issue 10, pp. 3069-75, (2012) (PubMed).

There are more publications referencing this product on: Product page

Images



ELISA

Image 1. Mouse TIMP-2 PicoKine ELISA Kit standard curve