

Datasheet for ABIN2859278

TIMP1 ELISA Kit[Go to Product page](#)**1** Image**8** Publications

Overview

Quantity:	96 tests
Target:	TIMP1
Binding Specificity:	AA 25-205
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	31.2-2000 pg/mL
Minimum Detection Limit:	31.2 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse TIMP-1
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: C25-R205
Specificity:	Expression system for standard: NSO Immunogen sequence: C25-R205
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: TIMP1

Alternative Name: TIMP1 ([TIMP1 Products](#))

Background: Protein Function: Metalloproteinase inhibitor that functions by forming one to one complexes with target metalloproteinases, such as collagenases, and irreversibly inactivates them by binding to their catalytic zinc cofactor. Acts on MMP1, MMP2, MMP3, MMP7, MMP8, MMP9, MMP10, MMP11, MMP12, MMP13 and MMP16. Does not act on MMP14 (By similarity). Also functions as a growth factor that regulates cell differentiation, migration and cell death and activates cellular signaling cascades via CD63 and ITGB1. Plays a role in integrin signaling. .

Background: TIMP metalloproteinase inhibitor 1, also known as TIMP1, a tissue inhibitor of metalloproteinases, is a glycoprotein that is expressed from the several tissues of organisms. This protein is a member of the TIMP family. It was found to reside at Xp11.4-p11.1. This is the first growth factor found to be X-linked. The glycoprotein is a natural inhibitor of the matrix metalloproteinases (MMPs), a group of peptidases involved in degradation of the extracellular matrix. In addition to its inhibitory role against most of the known MMPs, the encoded protein is able to promote cell proliferation in a wide range of cell types, and may also have an anti-apoptotic function. Whatâ€™s more, TIMP1 is thought to play a regulatory role in connective tissues by forming inactive complexes with those metalloproteinases that are normally responsible for connective tissue turnover.

Synonyms: Metalloproteinase inhibitor 1, Collagenase inhibitor 16C8 fibroblast, Erythroid-potentiating activity, EPA, TPA-S1, TPA-induced protein, Tissue inhibitor of metalloproteinases 1, TIMP-1, Timp1, Timp, Timp-1,

Full Gene Name: Metalloproteinase inhibitor 1

Cellular Localisation: Secreted.

Gene ID: 21857

UniProt: [P12032](#)

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: Found in fetal and adult tissues. Highest levels are found in bone. Also found in lung, ovary and uterus.
Plate:	Pre-coated
Protocol:	mouse TIMP-1 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for TIMP-1 has been precoated onto 96-well plates. Standards(NS0, C25-R205) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for TIMP-1 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-1 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 2000pg/mL,1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL mouse TIMP-1 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 supernates, serum or plasma(heparin, EDTA) to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse TIMP-1 standard solution and each sample be measured in duplicate.
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 371, Standard deviation: 15.95, CV(%): 4.3• Sample 2: n=16, Mean(pg/ml): 602, Standard deviation: 29.5, CV(%): 4.9• Sample 3: n=16, Mean(pg/ml): 1025, Standard deviation: 36.9, CV(%): 3.6,• Sample 1: n=24, Mean(pg/ml): 382, Standard deviation: 24.45, CV(%): 6.4• Sample 2: n=24, Mean(pg/ml): 619, Standard deviation: 47.04, CV(%): 7.6• Sample 3: n=24, Mean(pg/ml): 1270, Standard deviation: 73.66, CV(%): 5.8
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

Handling

Expiry Date: 12 months

Publications

Product cited in: Ge, Yu, Liu, Cong, Liu, Wang, Zhou, Lin: "Characterization of bone marrow-derived mesenchymal stem cells from dimethyloxallyl glycine-preconditioned mice: Evaluation of the feasibility of dimethyloxallyl glycine as a mobilization agent." in: **Molecular medicine reports**, Vol. 13, Issue 4 , pp. 3498-506, (2016) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)

Images

