Datasheet for ABIN2859242

COL18A1 ELISA Kit

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Overview

Quantity:	96 tests
Target:	COL18A1
Binding Specificity:	AA 1591-1774
Reactivity:	Mouse
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 Mouse Endostatin
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: H1591-K1774
Specificity:	Expression system for standard: NSO Immunogen sequence: H1591-K1774
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:	COL18A1
Alternative Name:	Endostatin (COL18A1 Products)
Target Type:	Chemical
Background:	Protein Function: Endostatin potently inhibits endothelial cell proliferation and angiogenesis. May inhibit angiogenesis by binding to the heparan sulfate proteoglycans involved in growth factor signaling. Background: Endostatin is a naturally-occurring 20- kDa C-terminal fragment derived from type XVIII collagen. It is reported to serve as an anti-angiogenic agent, similar to angiostatin and thrombospondin. And It is produced by proteolytic cleavage of collagen XVIII, a member of the multiplexin family that is characterized by interruptions in the triple helix creating multiple domains, by proteases such as cathepsins. Using a genomic clone as a probe for fluorescence in situ hybridization, Endostatin was mapped the COL18A1 gene to 21q22.3. By immunoprecipitation analysis using membrane fractions of human mammary epithelial cells, It showed that endostatin specifically bound to cell surface nucleolin with high affinity. Blockage of nucleolin with neutralizing antibody or knockdown of nucleolin by RNA interference countered the antiendothelial activity of endostatin and abrogated its antiangiogenic and antitumor activity in vivo. Synonyms: Collagen alpha-1(XVIII) chain,Endostatin,Col18a1, Full Gene Name: Collagen alpha-1(XVIII) chain Cellular Localisation: Secreted, extracellular space, extracellular matrix.
Gene ID:	12822
UniProt:	P39061

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.

Application Details

Comment:	Sequence similarities: Belongs to the multiplexin collagen family. Tissue Specificity: Expressed in liver, kidney, lung, skeletal muscle and testis. .
Plate:	Pre-coated
Protocol:	mouse Endostatin ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for Endostatin has been precoated onto 96-well plates. Standards(NSO, H1591-K1774) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Endostatin 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 Endostatin 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 mouse Endostatin 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 Endostatin standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(ng/ml): 0.8, Standard deviation: 0.052, CV(%): 6.5 • Sample 2: n=16, Mean(ng/ml): 2.14, Standard deviation: 0.135, CV(%): 6.3 • Sample 3: n=16, Mean(ng/ml): 4.25, Standard deviation: 0.179, CV(%): 4.2, • Sample 1: n=24, Mean(ng/ml): 0.84, Standard deviation: 0.06, CV(%): 7.1 • Sample 2: n=24, Mean(ng/ml): 2.23, Standard deviation: 0.147, CV(%): 6.6 • Sample 3: n=24, Mean(ng/ml): 4.37, Standard deviation: 0.253, CV(%): 5.8
Restrictions:	For Research Use only

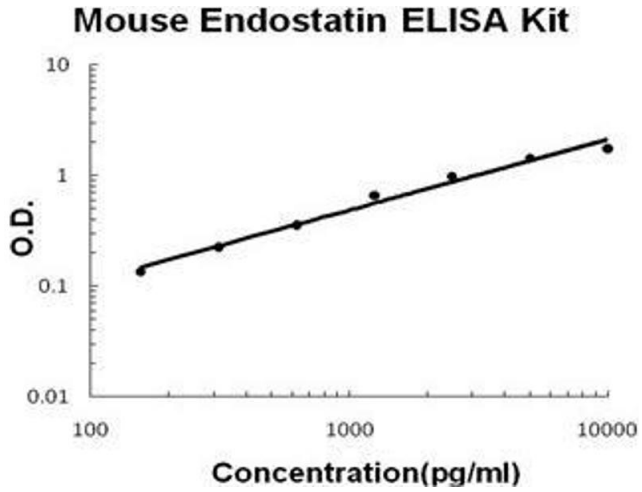
Handling

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
Expiry Date:	12 months

Publications

Product cited in:	Huang, Lv, Liu, Ye, Yang, Li, Zhu, Wang, Cui, Jiang, Hao, Xu, Jin, Qian: "A SIRPα-Fc fusion protein enhances the antitumor effect of oncolytic adenovirus against ovarian cancer." in: **Molecular oncology**, Vol. 14, Issue 3, pp. 657-668, (2021) (PubMed).

Images



ELISA

Image 1. Mouse Endostatin PicoKine ELISA Kit standard curve