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Datasheet for ABIN2859260

VEGFB ELISA Kit

1 Image

1 Publication

Overview

Quantity:	96 tests
Target:	VEGFB
Binding Specificity:	AA 20-148, AA 20-207
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 VEGF-B
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: sf21 Immunogen sequence: Q20-A207&Q20-R148
Specificity:	Expression system for standard: sf21 Immunogen sequence: Q20-A207 & Q20-R148
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.

Product Details

Sensitivity: <2pg/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: VEGFB

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

Background: Protein Function: Growth factor for endothelial cells. VEGF-B167 binds heparin and neuropilin-1 whereas the binding to neuropilin-1 of VEGF-B186 is regulated by proteolysis. VEGF-B seems to be required for normal heart function in adult but is not required for proper development of the cardiovascular system either during development or for angiogenesis in adults. .

Background: Vascular endothelial growth factor B also known as VEGF-B is a protein that, in humans, is encoded by the VEGF-B gene. VEGF-B is a growth factor that belongs to the vascular endothelial growth factor family, of which VEGF-A is the best-known member. In contrast to VEGF-A, VEGF-B plays a less pronounced role in the vascular system: Whereas VEGF-A is important for the formation of blood vessels, such as during development or in pathological conditions, VEGF-B seems to play a role only in the maintenance of newly formed blood vessels during pathological conditions. It also plays an important role on several types of neurons. And it is important for the protection of neurons in the retina and the cerebral cortex during stroke and of motoneurons during motor neuron diseases such as amyotrophic lateral sclerosis.

Synonyms: Vascular endothelial growth factor B, VEGF-B, VEGF-related factor, VRF, Vegfb, Vrf,

Full Gene Name: Vascular endothelial growth factor B

Cellular Localisation: Secreted. Secreted but remains associated to cells or to the extracellular matrix unless released by heparin.

Gene ID: 22340

UniProt: [P49766](#)

Pathways: [RTK Signaling](#), [Signaling Events mediated by VEGFR1 and VEGFR2](#), [VEGFR1 Specific Signals](#)

Application Details

Application Notes: Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well

Application Details

assay was recommended for both standard and sample testing.

Comment: Sequence similarities: Belongs to the PDGF/VEGF growth factor family.
Tissue Specificity: Abundantly expressed in heart, brain, kidney and skeletal muscle.

Plate: Pre-coated

Protocol: mouse VEGF-B ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for VEGF-B has been precoated onto 96-well plates. Standards(sf21,Q20-A207 & Q20-R148) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for VEGF-B 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 VEGF-B 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 VEGF-B 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) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each mouse VEGF-B standard solution and each sample is measured in duplicate.

Assay Precision:

- Sample 1: n=16, Mean(pg/ml): 158, Standard deviation: 6.95, CV(%): 4.4
- Sample 2: n=16, Mean(pg/ml): 652, Standard deviation: 33.25, CV(%): 5.1
- Sample 3: n=16, Mean(pg/ml): 1309, Standard deviation: 74.61, CV(%): 5.7,
- Sample 1: n=24, Mean(pg/ml): 197, Standard deviation: 14.58, CV(%): 7.4
- Sample 2: n=24, Mean(pg/ml): 763, Standard deviation: 54.94, CV(%): 7.2
- Sample 3: n=24, Mean(pg/ml): 1611, Standard deviation: 124.05, CV(%): 7.7

Restrictions: For Research Use only

Handling

Handling Advice: Avoid multiple freeze-thaw cycles.

Storage: -20 °C, 4 °C

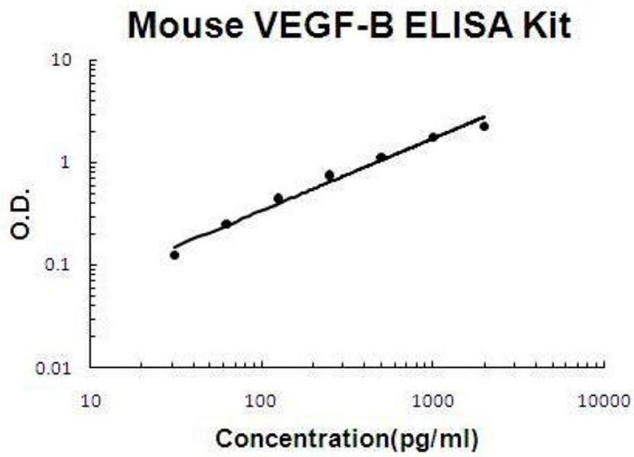
Storage Comment: Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles

Expiry Date: 12 months

Publications

Product cited in: Motawi, Mahdy, El-Sawalhi, Ali, El-Telbany: "Serum levels of chemerin, apelin, vaspin, and 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. Mouse VEGF-B PicoKine ELISA Kit standard curve