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Datasheet for ABIN411371

VEGF ELISA Kit

1 Image

41 Publications

Overview

Quantity:	96 tests
Target:	VEGF
Binding Specificity:	AA 27-190
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	15.6-1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse VEGF
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum, Plasma (heparin), Plasma (EDTA), Plasma (citrate)
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: sf21 Immunogen sequence: A27-R190
Specificity:	Expression system for standard: sf21,A27-R190
Cross-Reactivity (Details):	There is no detectable cross-reactivity with other relevant proteins.
Sensitivity:	<2pg/mL

Product Details

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: VEGF

Abstract: [VEGF Products](#)

Background: Protein Function: Growth factor active in angiogenesis, vasculogenesis and endothelial cell growth. Induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis and induces permeabilization of blood vessels. Binds to the FLT1/VEGFR1 and KDR/VEGFR2 receptors, heparan sulfate and heparin. May play a role in increasing vascular permeability during lactation, when increased transport of molecules from the blood is required for efficient milk protein synthesis (By similarity).

Background: Vascular permeability factor/vascular endothelial growth factor(VPF/VEGF), a potent cytokine expressed by most malignant tumors, has critical roles in vasculogenesis and both physiological and pathological angiogenesis. VEGF produced by tumor cells potently stimulates endothelial cell proliferation and angiogenesis and plays a key role in the pathophysiology of several neoplasias. VEGF may also play a pivotal role in mediating the development and progression of diabetic retinopathy. VEGF, a major regulator of angiogenesis, binds to two receptor tyrosine kinases, KDR/Flk-1 and Flt-1. The VEGF gene is mapped by fluorescence in situ hybridization to chromosome 6p12. The standard product used in this kit is recombinant mouse VEGF164, a 42KDa dimer.

Synonyms: Vascular endothelial growth factor A, VEGF-A, Vascular permeability factor, VPF, Vegfa, Vegf,

Full Gene Name: Vascular endothelial growth factor A

Cellular Localisation: Isoform VEGF-1: Secreted.

Gene ID: 22339

UniProt: [Q00731](#)

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:	<p>Sequence similarities: Belongs to the PDGF/VEGF growth factor family.</p> <p>Tissue Specificity: In developing embryos, expressed mainly in the choroid plexus, paraventricular neuroepithelium, placenta and kidney glomeruli. Also found in bronchial epithelium, adrenal gland and in seminiferous tubules of testis. High expression of VEGF continues in kidney glomeruli and choroid plexus in adults.</p>
Plate:	Pre-coated
Protocol:	<p>mouse VEGF ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for VEGF has been precoated onto 96-well plates. Standards (sf21,A27-R190) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for VEGF 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 amount of sample captured in plate.</p>
Assay Procedure:	<p>Aliquot 0.1 mL per well of the 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.3pg/mL, 15.6pg/mL mouse VEGF 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, citrate) to each empty well. See "Sample Dilution Guideline" above for details. We recommend that each mouse VEGF standard solution and each sample is measured in duplicate.</p>
Assay Precision:	<ul style="list-style-type: none">• Sample 1: n=16, Mean(pg/ml): 126, Standard deviation: 4.41, CV(%): 3.5• Sample 2: n=16, Mean(pg/ml): 341, Standard deviation: 13.64, CV(%): 4• Sample 3: n=16, Mean(pg/ml): 580, Standard deviation: 28.42, CV(%): 4.9,• Sample 1: n=24, Mean(pg/ml): 212, Standard deviation: 10.6, CV(%): 5• Sample 2: n=24, Mean(pg/ml): 475, Standard deviation: 30.4, CV(%): 6.4• Sample 3: n=24, Mean(pg/ml): 624, Standard deviation: 46.8, CV(%): 7.5
Restrictions:	For Research Use only

Handling

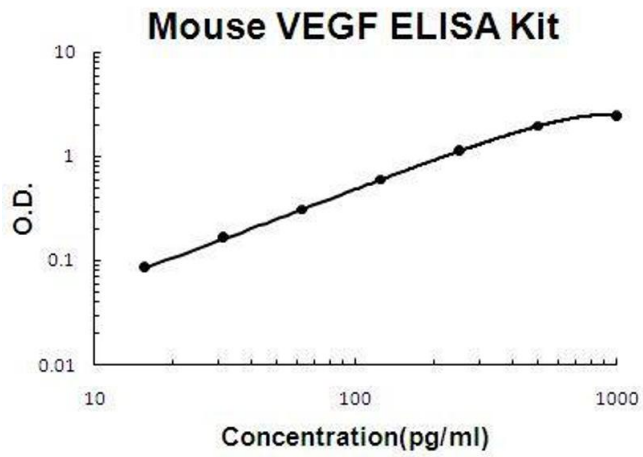
Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles

Handling

Expiry Date: 12 months

Publications

- Product cited in:
- Chen, Qiao, Tang, Chen, Liu, Yang, Wei, Zhang, Cheng, Du, Jiang, Hu, Hua: "Modulation of Salmonella Tumor-Colonization and Intratumoral Anti-angiogenesis by Triptolide and Its Mechanism." in: **Theranostics**, Vol. 7, Issue 8, pp. 2250-2260, (2018) ([PubMed](#)).
- Li, Ding, Ling, Wu, Meng, Li, Zhang: "Metformin attenuates motility, contraction, and fibrogenic response of hepatic stellate cells in vivo and in vitro by activating AMP-activated protein kinase." in: **World journal of gastroenterology**, Vol. 24, Issue 7, pp. 819-832, (2018) ([PubMed](#)).
- Zou, Wang, Liu, Bai, Wang, Liu, Zhang, Xiao, Wang: "Nucleolin mediated pro-angiogenic role of Hydroxysafflor Yellow A in ischaemic cardiac dysfunction: Post-transcriptional regulation of VEGF-A and MMP-9." in: **Journal of cellular and molecular medicine**, Vol. 22, Issue 5, pp. 2692-2705, (2018) ([PubMed](#)).
- Cheng, Chen, Su, Su, Hou: "A novel dressing seeded with embryonic artery CD133+ cells and loaded with the Sirt1 agonist SRT1720 accelerates the healing of diabetic ischemic ulcers." in: **Experimental and therapeutic medicine**, Vol. 15, Issue 6, pp. 5243-5250, (2018) ([PubMed](#)).
- Wang, Liu, Chen, Chen: "Physicochemical characterization of the oolong tea polysaccharides with high molecular weight and their synergistic effects in combination with polyphenols on hepatocellular carcinoma." in: **Biomedicine & pharmacotherapy**, Vol. 90, pp. 160-170, (2017) ([PubMed](#)).
- There are more publications referencing this product on: [Product page](#)



ELISA

Image 1. Mouse VEGF PicoKine ELISA Kit standard curve