

Human VEGFA ELISA Kit ab119566

17 References 1 Image

Overview

Product name	Human VEGFA ELISA Kit				
Detection method	Colorimetric				
Precision	Intra-assay				
	Sample	n	Mean	SD	CV%
	Overall	8			6.2%
	Inter-assay				
	Sample	n	Mean	SD	CV%
	Overall	8			4.3%
Sample type	Cell culture supernatant, Serum, Plasma				
Assay type	Sandwich (quantitative)				
Sensitivity	7.9 pg/ml				
Range	15.6 pg/ml - 1000 pg/ml				
Recovery	Sample specific recovery				
	Sample type		Average %		Range
	Cell culture supernatant				88% - 98%
	Serum				81% - 88%
Assay duration	Multiple steps standard assay				
Species reactivity	Reacts with: Human				
Product overview	Abcam's VEGFA Human <i>in vitro</i> ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for accurate quantitative measurement of Human VEGFA concentrations in Cell culture supernatant, serum and plasma (EDTA, citrate, heparin).				

VEGFA specific antibodies have been precoated onto 96-well plates. Standards and test samples are added to the wells and then incubated at room temperature. After washing, a Biotin-conjugated anti-Human VEGFA detection antibody is added then incubated at room temperature.

Following washing Streptavidin-HRP conjugate is added to each well, incubated at room temperature then again washed. TMB is added and then catalyzed by HRP to produce a blue color product that changes into yellow after addition of an acidic stop solution. The density of yellow coloration is directly proportional to the amount of VEGFA captured on the plate.

Produced using a non-baculovirus *Escherichia coli* expression system.

Platform Microplate

Properties

Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
20X Assay Buffer Concentrate	1 x 5ml
20X Wash Buffer Concentrate	1 x 50ml
Adhesive Films	6 units
Biotin-Conjugate anti-human VEGFA polyclonal antibody	1 x 120µl
Human VEGFA coated microplate (12 x 8 wells)	1 unit
Human VEGFA Standard Lyophilized	2 vials
Sample Diluent	1 x 12ml
Stop Solution (1M Phosphoric acid)	1 x 15ml
Streptavidin-HRP	1 x 150µl
TMB Substrate Solution	1 x 15ml

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. NRP1/Neuropilin-1 binds isoforms VEGF-165 and VEGF-145. Isoform VEGF165B binds to KDR but does not activate downstream signaling pathways, does not activate angiogenesis and inhibits tumor growth.

Tissue specificity Isoform VEGF189, isoform VEGF165 and isoform VEGF121 are widely expressed. Isoform VEGF206 and isoform VEGF145 are not widely expressed.

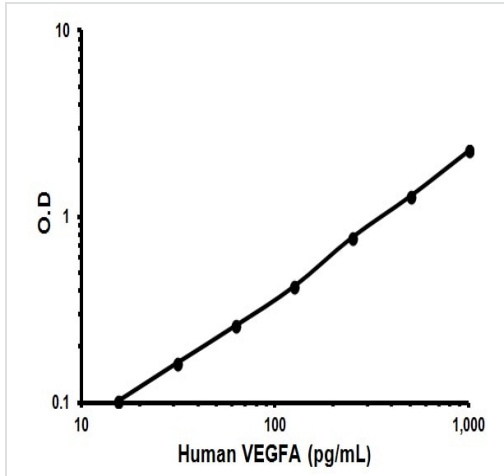
Involvement in disease Defects in VEGFA are a cause of susceptibility to microvascular complications of diabetes type 1 (MVCD1) [MIM:603933]. These are pathological conditions that develop in numerous tissues and organs as a consequence of diabetes mellitus. They include diabetic retinopathy, diabetic nephropathy leading to end-stage renal disease, and diabetic neuropathy. Diabetic retinopathy remains the major cause of new-onset blindness among diabetic adults. It is characterized by vascular permeability and increased tissue ischemia and angiogenesis.

Sequence similarities Belongs to the PDGF/VEGF growth factor family.

Cellular localization Secreted. VEGF121 is acidic and freely secreted. VEGF165 is more basic, has heparin-binding

properties and, although a significant proportion remains cell-associated, most is freely secreted. VEGF189 is very basic, it is cell-associated after secretion and is bound avidly by heparin and the extracellular matrix, although it may be released as a soluble form by heparin, heparinase or plasmin.

Images



Representative Standard Curve using ab119566.

Typical Standard Curve

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