

ARG83521 arigoQIK™ Mouse VEGF ELISA Kit

Package: 96 wells
Store at: 4°C, -20°C, -80°C

Component

Cat. No.	Component Name	Package	Temp
ARG83521-01	Antibody Coated Microplate	8 X 12 strips	4°C
ARG83521-02	Standard	2 vials	4°C
ARG83521-03	100X Antibody Conjugate Concentrate	60 ul	≤ -20°C
ARG83521-04	1000X HRP-Streptavidin solution	15 ul	4°C
ARG83521-05	Standard/Sample Diluent Buffer	20 ml	4°C
ARG83521-06	Antibody Diluent Buffer	35 ml	4°C
ARG83521-07	10X Wash Buffer	35 ml	4°C
ARG83521-08	TMB substrate	12 ml	4°C (protect from light)
ARG83521-09	STOP solution	12 ml	4°C
ARG83521-10	Plate sealer	2 strips	

Summary

Product Description	ARG83521 arigoQIK™ Mouse VEGF ELISA Kit is an Enzyme Immunoassay kit for the quantification of Mouse VEGF serum, plasma and cell culture supernatants.
Tested Reactivity	Ms
Tested Application	ELISA
Target Name	VEGF
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	11.71 pg/ml
Sample Type	Serum, plasma and cell culture supernatants.
Standard Range	23.44 - 1500 pg/ml
Sample Volume	50 µL
Precision	Intra-Assay CV: less than 10% Inter-Assay CV: less than 10%
Alternate Names	EGFA; Vascular Endothelial Growth Factor A; VPF; VEGF; Vascular Endothelial Growth Factor A, Long Form; Vascular Permeability Factor; VEGF-A; L-VEGF; Vascular Endothelial Growth Factor A121; Vascular Endothelial Growth Factor A165; Vascular Endothelial Growth Factor; MVCD1

Application Instructions

Assay Time 2 hours

Properties

Form 96 well

Storage instruction Store the kit at 4°C, -20°C, -80°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol Vascular Endothelial Growth Factor A

Gene Full Name VEGFA

Background This gene is a member of the PDGF/VEGF growth factor family. It encodes a heparin-binding protein, which exists as a disulfide-linked homodimer. This growth factor induces proliferation and migration of vascular endothelial cells, and is essential for both physiological and pathological angiogenesis. Disruption of this gene in mice resulted in abnormal embryonic blood vessel formation. This gene is upregulated in many known tumors and its expression is correlated with tumor stage and progression. Elevated levels of this protein are found in patients with POEMS syndrome, also known as Crow-Fukase syndrome. Allelic variants of this gene have been associated with microvascular complications of diabetes 1 (MVCD1) and atherosclerosis. Alternatively spliced transcript variants encoding different isoforms have been described. There is also evidence for alternative translation initiation from upstream non-AUG (CUG) codons resulting in additional isoforms. A recent study showed that a C-terminally extended isoform is produced by use of an alternative in-frame translation termination codon via a stop codon readthrough mechanism, and that this isoform is antiangiogenic. Expression of some isoforms derived from the AUG start codon is regulated by a small upstream open reading frame, which is located within an internal ribosome entry site. The levels of VEGF are increased during infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), thus promoting inflammation by facilitating recruitment of inflammatory cells, and by increasing the level of angiotensin II (Ang II), one of two products of the SARS-CoV-2 binding target, angiotensin-converting enzyme 2 (ACE2). In turn, Ang II facilitates the elevation of VEGF, thus forming a vicious cycle in the release of inflammatory cytokines. [provided by RefSeq, Jun 2020]

Function 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. Binds to the NRP1/neuropilin-1 receptor. Binding to NRP1 initiates a signaling pathway needed for motor neuron axon guidance and cell body migration, including for the caudal migration of facial motor neurons from rhombomere 4 to rhombomere 6 during embryonic development. [Uniprot]

Cellular Localization Cytoplasm, Endoplasmic reticulum, Extracellular matrix, Golgi apparatus, Nucleus, Secreted. [Uniprot]