

Product datasheet

Mouse VEGF R3 ELISA Kit (FLT4) α b203367

SimpleStep ELISA[®]

[4 Images](#)

Overview

Product name Mouse VEGF R3 ELISA Kit (FLT4)

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Overall	8			4.59%

Inter-assay

Sample	n	Mean	SD	CV%
Overall	3			7.14%

Sample type

Cell culture supernatant, Serum, Hep Plasma, EDTA Plasma, Cit plasma

Assay type

Sandwich (quantitative)

Sensitivity

17.97 pg/ml

Range

46.9 pg/ml - 3000 pg/ml

Recovery

Sample specific recovery

Sample type	Average %	Range
Serum	85	81% - 88%
Cell culture media	87	87% - 88%
Hep Plasma	99	95% - 101%
EDTA Plasma	100	96% - 104%
Cit plasma	103	101% - 107%

Assay time

1h 30m

Assay duration	One step assay
Species reactivity	Reacts with: Mouse Does not react with: Cow, Pig
Product overview	<p>Abcam's VEGF R3 (FLT4) <i>in vitro</i> SimpleStep ELISA® (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of VEGF R3 protein in mouse serum, plasma, and cell culture supernatants.</p> <p>The SimpleStep ELISA® employs an affinity tag labeled capture antibody and a reporter conjugated detector antibody which immunocapture the sample analyte in solution. This entire complex (capture antibody/analyte/detector antibody) is in turn immobilized via immunoaffinity of an anti-tag antibody coating the well. To perform the assay, samples or standards are added to the wells, followed by the antibody mix. After incubation, the wells are washed to remove unbound material. TMB substrate is added and during incubation is catalyzed by HRP, generating blue coloration. This reaction is then stopped by addition of Stop Solution completing any color change from blue to yellow. Signal is generated proportionally to the amount of bound analyte and the intensity is measured at 450 nm. Optionally, instead of the endpoint reading, development of TMB can be recorded kinetically at 600 nm.</p>
Notes	<p>The VEGF receptor family includes three members VEGF R1, VEGF R2, and VEGF R3 (FLT4). These receptors have a characteristic structure that includes 7 Ig-like domains in the extracellular domain and a cytoplasmic tyrosine kinase domain with a long kinase insert region. VEGF R3 is a tyrosine protein kinase that acts as a cell-surface receptor for VEGFC and VEGFD. It plays an essential role in adult lymphangiogenesis, and in the development of the vascular network and cardiovascular system during embryonic development. VEGF R3 promotes proliferation, survival and migration of endothelial cells, and regulates angiogenic sprouting. Signaling by activated VEGF R3 leads to enhanced production of VEGFC and VEGFA, creating a positive feedback loop that enhances FLT4 signaling.</p>
Platform	Pre-coated microplate (12 x 8 well strips)

Properties

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

Components	1 x 96 tests
10X Mouse VEGF R3 Capture Antibody	1 x 600µl
10X Mouse VEGF R3 Detector Antibody	1 x 600µl
10X Wash Buffer PT (ab206977)	1 x 20ml
Antibody Diluent CP	1 x 6ml
Mouse VEGF R3 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
Sample Diluent NS (ab193972)	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml

Components

1 x 96 tests

TMB Development Solution

1 x 12ml

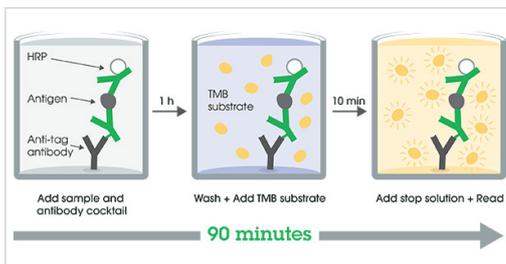
Relevance

Vascular endothelial growth factors (VEGFs) are a family of closely related growth factors having a conserved pattern of eight cysteine residues and sharing common VEGF receptors. VEGFs stimulate the proliferation of endothelial cells, induce angiogenesis, and increase vascular permeability in both large and small vessels. The mitogenic activity of VEGFs appears to be mediated by specific VEGF receptors. VEGF Receptor 3 is one of the five receptor tyrosine kinases (RTKs) (VEGF Receptor 1/Flt1, VEGF Receptor 2/KDR/Flk1, VEGF Receptor 3/Flt4, tie1 and tek/tie2) whose expression is almost exclusively restricted to endothelial cells.

Cellular localization

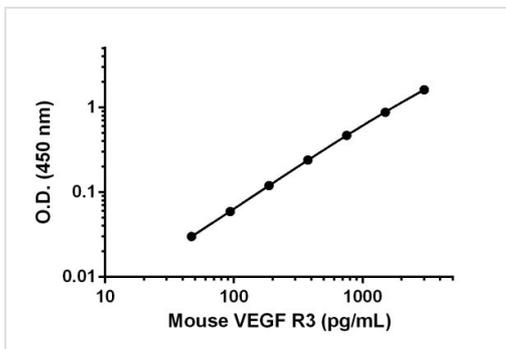
Cell membrane; Single-pass type I membrane protein.

Images



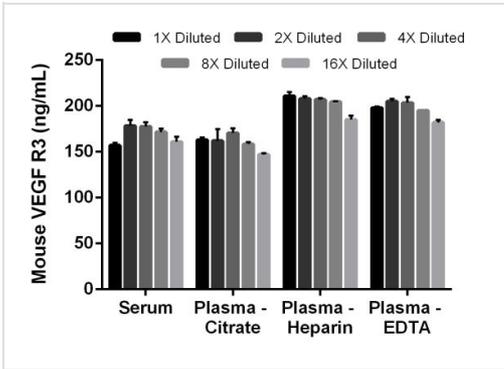
SimpleStep ELISA technology allows the formation of the antibody-antigen complex in one single step, reducing assay time to 90 minutes. Add samples or standards and antibody mix to wells all at once, incubate, wash, and add your final substrate. See protocol for a detailed step-by-step guide.

Other - Mouse VEGF R3 ELISA Kit (FLT4)
(ab203367)



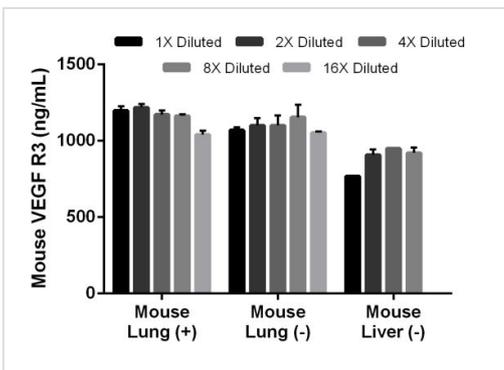
Background-subtracted data values (mean +/- SD) are graphed.

Example of VEGF R3 standard curve.



The 1X dilution is 5% for mouse serum, and 2.5% for each of the plasmas. Interpolated data values (mean +/- SD, n = 2) are graphed.

Titration of mouse serum, citrate plasma, heparin plasma, and EDTA plasma within the working range of the assay.



The 1X dilution is 50.0% for the lung supernatants, and 25.0% for the liver supernatant. Interpolated data values (mean +/- SD, n = 2) are graphed.

Titration of mouse stimulated (100 ng/mL LPS + 50 ng/mL PMA, 3 days (+)) lung supernatant, and unstimulated (-) lung and liver cell culture supernatants within the working range of the assay.

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