

VEGF (human), ELISA kit

Ultra-sensitive ELISA kit for the quantitative detection of human VEGF with 100% cross reactivity to VEGF 165 and negligible cross-reactivity to VEGF 121 and an assay time of just 2.5 hours

The VEGF (human), EIA kit is a sensitive colorimetric immunometric enzyme immunoassay kit with results in just 2.5 hours. Absorbance is read at 450 nm. The wide dynamic range is ideal for various matrices. Assay up to 39 samples in duplicate with each kit.

Vascular Endothelial Growth Factor (VEGF), originally known as vascular permeability factor (VPF), is a family of proteins that stimulate vasculogenesis and angiogenesis. The VEGF family comprises five members: VEGF-A, VEGF-B, VEGF-C, VEGF-D and PGF (placenta growth factor). Being the first VEGF family member discovered, VEGF-A is often simply referred to as VEGF. Alternative splicing of an 8-exon VEGF mRNA results in multiple isoforms of 121, 145, 165, 183, 189, and 206 amino acids. VEGF165 and VEGF121 are predominant isoforms expressed in most cells and tissues. VEGF165 is a 45 KDa homodimeric glycoprotein and has moderate affinity to heparin. In contrast, VEGF 121 doesn't bind heparin. VEGF specifically binds tyrosine kinase receptors VEGFR-1 (Flt-1) and VEGFR-2 (Flk-1) to activate downstream signaling pathways leading to endothelial cell survival, proliferation, migration, and vascular permeability. VEGF plays an essential role in normal vascular embryonic and reproductive angiogenesis. On the other hand, VEGF is central to pathological angiogenesis by enhancing vessel permeability or recruiting endothelial progenitor cells to distant sites of neovascularization. The well understanding of VEGF in promoting pathological angiogenesis and tumor metastasis has led to the rational studies on blocking the VEGF/VEGFR axis in inhibiting angiogenesis and tumor growth in multiple clinical models.

Citations: 8

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Ordering Information

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ENZ-KIT156-0001

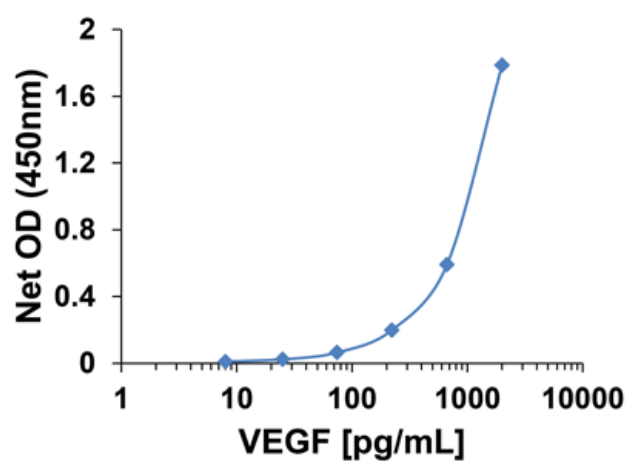
96 wells

Manuals, SDS & CofA

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- Sensitive Assay - detect VEGF as low as 4.712 pg/ml
- Specific - 100% cross-reactivity to VEGF 165 with negligible cross-reactivity to related molecules including VEGF 121
- Flexible - wide dynamic range ideal for various matrices
- Higher throughput - assay up to 38 samples in duplicate with each kit with an assay time of just 2.5 hours
- Efficiency - our color coded reagents help to reduce errors and increase efficiency

VEGF Standard Curve



Handling & Storage

Long Term Storage +4°C

Shipping Blue Ice

Regulatory Status RUO - Research Use Only

Product Details

Alternative Name Vascular endothelial growth factor

Application Colorimetric detection, ELISA

Application Notes For the quantitative determination of human VEGF in serum, plasma, and culture supernatants.

Assay Time 2.5 hours

Compatibility This product is compatible with the [Absorbance 96 Plate Reader](#).

Contents Microtiter Plate, Conjugate, Detector Antibody, Assay buffer, Antibody Diluent, Wash Buffer Concentrate, Standard, TMB Substrate, Stop Solution

Crossreactivity 100% cross-reactivity to human VEGF 165. No cross-reactivity to VEGF121, PDGF-AA, IL-10, GRO, Endothelin-1, big Endothelin-1, G-CSF, SCF, IL-8, HGF, Endothelin-3.

Sensitivity 4.712 pg/ml (range 8-2,000 pg/ml)

Species Reactivity Human

Technical Info / Product Notes **Cited samples:**
[Cytokine ELISAs Cited Samples](#)

UniProt ID P15692-4

Wavelength 450 nm



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