Human $VEGF_{165}$ Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF-293-NA

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human VEGF in direct ELISAs and Western blots. In direct ELISAs, approximately 100% cross-reactivity with recombinant canine VEGF is observed, and less then 20% cross-reactivity with recombinant mouse $VEGF_{165}$ and recombinant rat $VEGF_{164}$ is observed, and less than 5% cross-reactivity with recombinant zebrafish VEGF is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*S. frugiperda* insect ovarian cell line *Sf* 21-derived recombinant human $VEGF_{165}$ Ala27-Arg191 Accession # NP_001165097.1
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

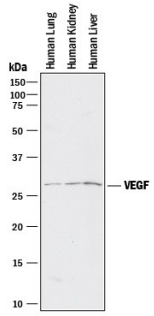
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	5-10 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below
Neutralization	Measured by its ability to neutralize $VEGF_{165}$-induced proliferation in HUVEC human umbilical vein endothelial cells. Conn, G. *et al*. (1990) Proc. Natl. Acad. Sci. USA **87**:1323. The Neutralization Dose (ND_{50}) is typically 0.02-0.12 µg/mL in the presence of 10 ng/mL Recombinant Human $VEGF_{165}$.	

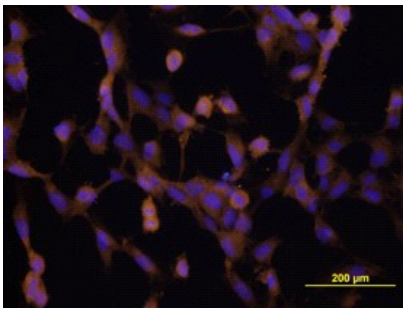
DATA

Western Blot



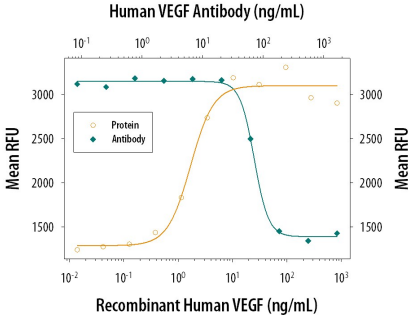
Detection of Human VEGF by Western Blot. Western blot shows lysates of human lung tissue, human kidney tissue, and human liver tissue. PVDF membrane was probed with 5-10 µg/mL of Goat Anti-Human $VEGF_{165}$ Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-293-NA) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for VEGF at approximately 27 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



VEGF in HUVEC Cells. VEGF was detected in immersion fixed human umbilical vein endothelial cells (HUVECs) using Goat Anti-Human $VEGF_{165}$ Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-293-NA) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (yellow; Catalog # NL001) and counter-stained with DAPI (blue). View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

Neutralization



Cell Proliferation Induced by $VEGF_{165}$ and Neutralization by Human VEGF Antibody. Recombinant Human $VEGF_{165}$ (Catalog # 293-VE) stimulates proliferation in HUVEC human umbilical vein endothelial cells in a dose-dependent manner (orange line). Proliferation elicited by Recombinant Human $VEGF_{165}$ (10 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Human $VEGF_{165}$ Antigen Affinity-purified Polyclonal Antibody (Catalog # AF-293-NA). The ND_{50} is typically 0.02-0.12 µg/mL.

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Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF-293-NA

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

VEGF is a soluble protein secreted by a wide variety of cell types. It binds to the receptor tyrosine kinases VEGF R1 (Flt-1) and VEGF R2 (Flk-1). VEGF stimulates vascular endothelial cell proliferation and is a potent inducer of angiogenesis. Several VEGF isoforms occur resulting from alternative mRNA splicing.

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