

Product Information

Anti-Vascular Endothelial Growth Factor

produced in goat, IgG fraction of antiserum

Catalog Number **V6627**

Synonym: Anti-VEGF

Product Description

Anti-Vascular Endothelial Growth Factor is produced in goat using as immunogen recombinant human VEGF₁₆₅ expressed in the insect cell line Sf21. The product is purified by Protein G affinity chromatography.

Anti-Vascular Endothelial Growth Factor may be used in various applications, including neutralization, immunoblotting, and immunohistochemistry. The antibody will neutralize the biological activity of recombinant human VEGF₁₆₅ and recombinant human VEGF₁₂₁. The antibody shows ~20% cross-reactivity with recombinant mouse VEGF and recombinant rat VEGF.

Vascular Endothelial Growth Factor, also known as vasculotropin, is an angiogenic growth factor which is heat and acid stable. VEGF is a dimeric, heparin-binding glycoprotein with a molecular mass of ~46 kDa.¹ VEGF is a basic protein, with an isoelectric point of 8.5.² Four cDNA clones have been identified. These clones arise through alternative splicing and encode mature, monomeric human VEGF having 121, 165, 189, or 206 amino acids. Recombinant human VEGF contains 165 amino acids and was used as the immunogen to prepare Anti-VEGF.³

Reagent

Lyophilized from 0.2 µm-filtered solution in phosphate buffered saline containing carbohydrates.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

To one vial of lyophilized powder, add 1 mL of 0.2 µm-filtered PBS to produce a 1 mg/mL stock solution of antibody. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage/Stability

Prior to reconstitution, store at -20 °C. Reconstituted product may be stored at 2-8 °C for up to one month. For prolonged storage, freeze in working aliquots at -20 °C. Avoid repeated freezing and thawing.

Product Profile

Neutralization: the antibody is tested for its ability to neutralize the biological activity of recombinant human VEGF on human umbilical vein endothelial (HUVE) cells.⁴ In this bioassay, 10 ng/mL rhVEGF₁₆₅ was incubated with various dilutions of the antibody for 1 hour at 22 °C in a 96 microwell plate. After the preincubation, HUVE cells were added to the antigen-antibody mixture. The assay mixture was incubated at 37 °C for 72 hours in a humidified CO₂ incubator and pulsed for the final 24 hours with ³H-thymidine. Cells were harvested onto glass filters and the ³H-thymidine incorporation into DNA was measured.

The ND₅₀ of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of recombinant human VEGF, which is present at a concentration just high enough to elicit a maximum response.

Immunoblotting: a working concentration of 1-2 µg/mL is recommended.

Immunohistochemistry: a working concentration of 5-15 µg/mL is recommended using paraffin-embedded human tissue sections.

Note: In order to obtain the best results in various techniques and preparations, the determination of optimal working dilutions by titration is recommended.

References

1. Ferrara, N. and Henzel, W. J., et al., *Biochem. Biophys. Res. Commun.*, **161**, 851 (1989).
2. Ferrara, N., et al., *Endocr. Reviews*, **13**, 18 (1992).
3. Leung, D.W., et al., *Science*, **246**, 1306 (1989).
4. Conn, G., et al., *Proc. Natl. Acad. Sci. USA*, **87**, 1323 (1990).

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