



Anti-canine VEGF Antibody

ORDERING INFORMATION

Catalog Number: AF1603

Lot Number: UFJ01

Size: 100 µg

Formulation: 0.2 µm filtered solution in PBS with 5% trehalose

Storage: -20° C

Reconstitution: sterile PBS

Specificity: canine VEGF

Immunogen: *E. coli*-derived rcaVEGF₁₆₄

Ig Type: goat IgG

Applications: Neutralization of bioactivity
Western blot
Immunocytochemistry
Direct ELISA

Preparation

Produced in goats immunized with purified, *E. coli*-derived, recombinant canine Vascular Endothelial Growth Factor (rcaVEGF). Canine VEGF specific IgG was purified by canine VEGF affinity chromatography.

Formulation

Lyophilized from a 0.2 µm filtered solution in phosphate-buffered saline (PBS) with 5% trehalose.

Endotoxin Level

< 0.1 EU per 1 µg of the antibody as determined by the LAL method.

Reconstitution

Reconstitute with sterile PBS. If 1 mL of PBS is used, the antibody concentration will be 0.1 mg/mL.

Storage

Lyophilized samples are stable for twelve months from date of receipt when stored at -20° C to -70° C. Upon reconstitution, the antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. Reconstituted antibody can also be aliquotted and stored frozen at -20° C to -70° C **in a manual defrost freezer** for six months without detectable loss of activity. **Avoid repeated freeze-thaw cycles.**

Specificity

This antibody has been selected for its ability to neutralize canine VEGF bioactivity. In direct ELISAs and western blots, this antibody shows approximately 50% cross-reactivity with rhVEGF, rmVEGF and rrVEGF.

Neutralization of Canine VEGF Bioactivity

The exact concentration of antibody required to neutralize rcaVEGF activity is dependent on the cytokine concentration, cell type, growth conditions and the type of activity studied. To provide a guideline, R&D Systems has determined the neutralization dose for this antibody under a specific set of conditions. The **Neutralization Dose₅₀ (ND₅₀)** for this antibody is defined as that concentration of antibody required to yield one-half maximal inhibition of the cytokine activity on a responsive cell line, when that cytokine is present at a concentration just high enough to elicit a maximum response.

The ND₅₀ for this lot of anti-canine VEGF antibody was determined to be approximately 0.04 - 0.10 µg/mL in the presence of 15 ng/mL of rcaVEGF, using HUVE cells. The specific conditions are described in the figure legends.

Additional Applications

Western blot - This antibody can be used at 0.1 - 0.2 µg/mL with the appropriate secondary reagents to detect canine VEGF. The detection limit for rcaVEGF is approximately 5 ng/lane under non-reducing and reducing conditions.

Immunocytochemistry -This antibody will detect VEGF in cells. The working dilution is 15 µg/mL. For chromogenic detection of labeling, use R&D Systems' Cell and Tissue Staining Kits (CTS Series).

Direct ELISA - This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect canine VEGF. The detection limit for rcaVEGF is approximately 0.2 ng/well.

Optimal dilutions should be determined by each laboratory for each application.

FOR RESEARCH USE ONLY. NOT FOR USE IN HUMANS.

R&D Systems, Inc.
1-800-343-7475

Figure 1

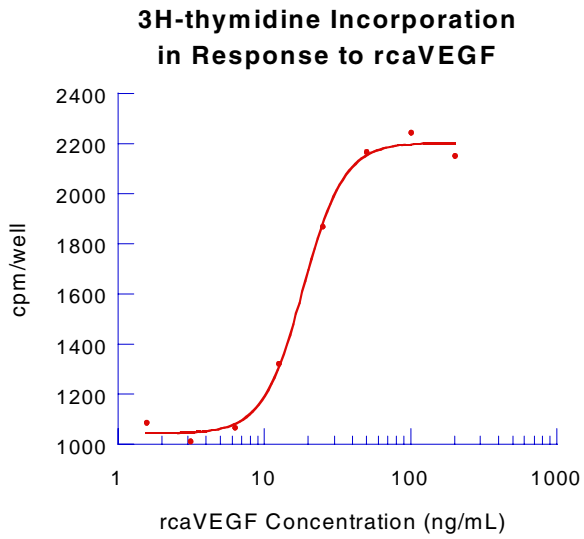


Figure 2

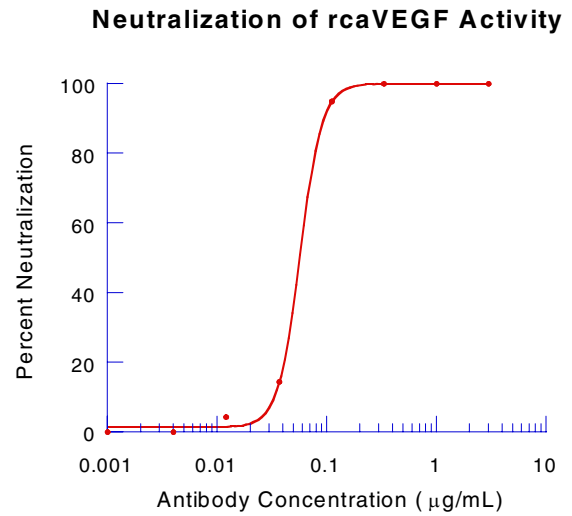


Figure 1

Canine VEGF stimulates the ³H-thymidine incorporation by human umbilical vein endothelial cells in a dose-dependent manner. The ED₅₀ for this effect is typically 5 - 15 ng/mL.

Figure 2

Approximately 0.04 - 0.10 µg/mL of the antibody will neutralize 50% of the bioactivity due to 15 ng/mL of rcaVEGF.