

**Anti-Bovine VEGF-A (RABBIT) Antibody**  
**VEGF-A Antibody**  
**Catalog # ASR4433****Specification**

---

**Anti-Bovine VEGF-A (RABBIT) Antibody - Product Information**

Host	Rabbit
Conjugate	Unconjugated
Target Species	Bovine
Reactivity	Bovine
Clonality	Polyclonal
Application	WB, E, I, LCI
Application Note	This protein-A purified antibody has been tested for use in ELISA and western blotting. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 19.2 kDa in size corresponding to bovine VEGF-A protein by western blotting in the appropriate cell lysate or extract.
Physical State	Lyophilized
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	This protein-A purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a recombinant protein raised in yeast, corresponding to the 164 amino acids of the mature bovine VEGF-A protein.
Reconstitution Volume	100 µL
Reconstitution Buffer	Restore with deionized water (or equivalent)
Preservative	0.01% (w/v) Sodium Azide

**Anti-Bovine VEGF-A (RABBIT) Antibody - Additional Information****Gene ID** 281572**Other Names**  
281572**Purity**

This product was Protein-A purified from monospecific antiserum by chromatography. This antibody is specific for bovine VEGF-A protein. A BLAST analysis was used to suggest cross-reactivity with VEGF-A from bovine, pig, sheep, and macaque sources based on 100% homology with the immunizing sequence. Partial reactivity is expected against human, horse, dog, cat, or guinea pig based on 95% homology; and to rat and mouse based on 93% homology. Cross-reactivity with VEGF-A from other sources has not been determined.

**Storage Condition**

Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

**Anti-Bovine VEGF-A (RABBIT) Antibody - Protein Information**

**Name** VEGFA

**Synonyms** VEGF

**Function**

Growth factor active in angiogenesis, vasculogenesis and endothelial cell growth. Induces endothelial cell proliferation, promotes cell migration, inhibits apoptosis and induces permeabilization of blood vessels. Binds to the FLT1/VEGFR1 and KDR/VEGFR2 receptors, heparan sulfate and heparin (By similarity). Binding to NRP1 receptor initiates a signaling pathway needed for motor neuron axon guidance and cell body migration, including for the caudal migration of facial motor neurons from rhombomere 4 to rhombomere 6 during embryonic development (By similarity). Also binds the DEAR/FBXW7-AS1 receptor (By similarity).

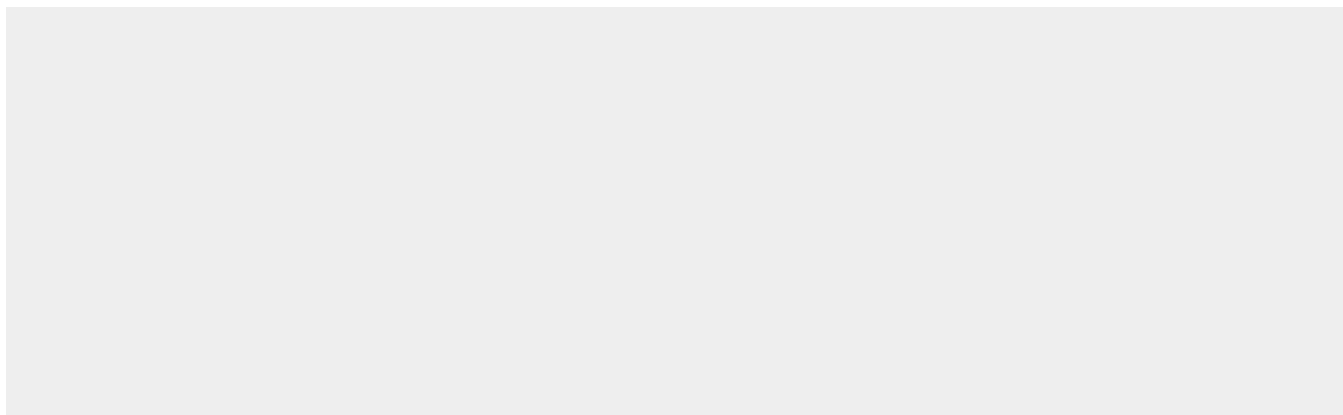
**Cellular Location**

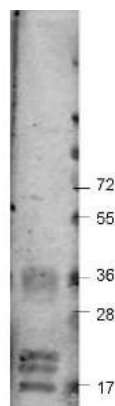
Secreted. Note=Secreted but remains associated to cells or to the extracellular matrix unless released by heparin.

**Anti-Bovine VEGF-A (RABBIT) Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-Bovine VEGF-A (RABBIT) Antibody - Images**



Western blot using Rockland's Protein-A Purified anti-bovine VEGF-A antibody shows detection of recombinant bovine VEGF-A at 17-19.2 kDa. Approximately 2 µg of recombinant protein was loaded per lane onto a 4-20% gradient gel followed by transfer to PVDF membrane. The membrane was blocked using 3% BSA (p/n BSA-30) diluted 1:10. The primary antibody was used at a 1:333 dilution and was incubated with the blot for 2h at room temperature. The membrane was washed and reacted with a 1:10,000 dilution of IRDye™ 800 Conjugated Affinity Purified Goat-anti-Rabbit IgG [H&L] MX10. Molecular weight estimation was made by comparison to prestained MW markers. Other detection systems will yield similar results.

#### **Anti-Bovine VEGF-A (RABBIT) Antibody - Background**

VEGF is a potent mitogen in embryonic and somatic angiogenesis with specificity for vascular endothelial cells. VEGF forms homodimers and exists in four different isoforms. Overall, the VEGF monomer resembles that of PDGF, but its N-terminal segment is helical rather than extended. VEGF shares homologies of about 21% and 24% respectively with the A and B chains of human platelet-derived growth factor (PDGF), and has complete conservation of the eight cysteine residues found in both mature PDGF chains. The cysteine knot motif is a common feature of this domain. The homology is not reflected in function, however, since the cell types responsive to VEGF are distinct from those responsive to homo- and heterodimers of the PDGF chains. This protein is a glycosylated mitogen that acts on endothelial cells and has various effects, including mediating increased vascular permeability, inducing angiogenesis, vasculogenesis and endothelial cell growth, promoting cell migration, and inhibiting apoptosis. VEGF-A also has been shown to have effects on a number of other cell types (e.g. stimulation of monocyte/macrophage migration, neurons, cancer cells, kidney epithelial cells). VEGF-A is also a vasodilator; it increases microvascular permeability, and was originally referred to as vascular permeability factor. Alternatively spliced transcript variants, encoding either freely secreted or cell-associated isoforms, have been characterized.