

Datasheet for ABIN2666678  
**VEGF121 Protein (AA 207-327)**



[Go to Product page](#)

## Overview

Quantity:	10 µg
Target:	VEGF121
Protein Characteristics:	AA 207-327
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Flow Cytometry (FACS)

## Product Details

Purity:	> 98 % , as determined by Coomassie stained SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 0.01 ng per µg cytokine as determined by the LAL method.

## Target Details

Target:	VEGF121
Alternative Name:	VEGF-121 ( <a href="#">VEGF121 Products</a> )
Background:	VEGF was initially identified in conditioned medium from bovine pituitary follicular cells. VEGF-A belongs to the VEGF family, which has the following members: VEGF-A, VEGF-B, VEGF-C (VEGF-2), VEGF-D, and PlGF (placental growth factor). In addition, viral VEGF homologs (collectively called VEGF-E) and snake venom VEGFs such as T.f. ( Trimeresurus flavoviridis) and svVEGF

## Target Details

---

(called VEGF-F) have been described. VEGFA is alternatively spliced to generate variants with different number of amino acids such as VEGFA121, VEGFA145, VEGFA165, and VEGFA189. While VEGFA121 is freely diffusible and did not bind to neuropilin (NRPs) nor heparin sulphate, VEGFA165 and VEGFA189 bind to both, resulting in retention on the cell surface or in the extracellular matrix. VEGF-A is highly expressed in solid tumors generated in breast, lung, renal, colorectal and liver tissues. VEGF has strong vascular permeability activity and significantly contributes to the formation of ascites tumors. VEGF can act as a direct proinflammatory mediator during the pathogenesis of rheumatoid arthritis (RA) and protect rheumatoid synoviocytes from apoptosis, which contributes to synovial hyperplasia. VEGF is expressed in synovial macrophages and synovial fibroblasts in RA patients. Also, VEGF is associated with age-related macular degeneration (AMD). AMD is due to neovascularization that originates from endothelial cells in the choroid that grow into neurosensory retina as choroidal neovascularization (CNV).

---

**Molecular Weight:** The 121 amino acid recombinant protein has a predicted molecular mass of approximately 14 kDa. The DTT-reduced protein migrates at approximately 20 kDa and non-reduced protein migrates at 40 kDa by SDS-PAGE. The N-terminal amino acid is Alanine.

## Application Details

---

**Application Notes:** Optimal working dilution should be determined by the investigator.

**Comment:** Biological activity: ED50 = 0.5 - 2.5 ng/ml, corresponding to a specific activity of 0.4 - 2.0 x 10<sup>6</sup> units/mg, as determined by the dose dependent stimulation of HUVEC cells proliferation.

**Restrictions:** For Research Use only

## Handling

---

**Format:** Liquid

**Reconstitution:** For maximum results, quick spin vial prior to opening. The protein can be aliquoted and stored from -20 °C to -70 °C. Stock solutions can also be prepared at 50-100 µg/mL in sterile buffer (PBS, HPBS, DPBS, or EBSS) containing carrier protein such as 0.2-1 % BSA or HSA and stored in working aliquots at -20 °C to -70 °C.

**Buffer:** 0.22 µm filtered protein solution is in 5 mM citric acid, 5 mM NaHPO<sub>4</sub>, 0.15 M NaCl, pH 4.0.

**Handling Advice:** Avoid repeated freeze/thaw cycles.

**Storage:** -20 °C

## Handling

---

Storage Comment: Unopened vial can be stored between 2°C and 8°C for one month, at -20°C for six months, or at -70°C for one year.