

Rev03  
Update: Dec,14,2021

**DATASHEET**

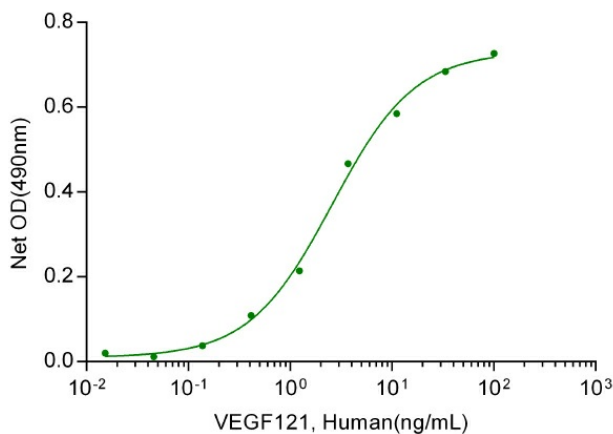
# VEGF121, Human

Cat. No.: Z03140

## Product Introduction

|                                  |  |
|----------------------------------|--|
| <b>Species</b>                   | Human  |
| <b>Protein Construction</b>      | Expressed with an N-terminal Met.<br><b>VEGF121 (Pro28-Arg147)<br/>Accession # P15692-9</b>  |
| <b>Purity</b>                    | > 95% as analyzed by SDS-PAGE<br>> 95% as analyzed by HPLC   |
| <b>Endotoxin Level</b>           | < 0.2 EU/μg of protein by gel clotting method  |
| <b>Biological Activity</b>       | ED <sub>50</sub> < 5.0 ng/ml, measured by a cell proliferation assay using HUVEC Cells, corresponding to a specific activity of > 2.0 × 10 <sup>5</sup> units/mg.  |
| <b>Expression System</b>         | E. coli  |
| <b>Apparent Molecular Weight</b> | ~28.2 kDa, on SDS-PAGE under non-reducing conditions.  |
| <b>Formulation</b>               | Lyophilized after extensive dialysis against PBS.  |
| <b>Reconstitution</b>            | It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH <sub>2</sub> O or PBS up to 100 μg/ml.  |
| <b>Storage &amp; Stability</b>   | Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles. |

## Examples



ED<sub>50</sub> < 5 ng/mL, measured by a cell proliferation assay using HUVEC Cells, corresponding to a specific activity of > 2 × 10<sup>5</sup> units/mg.

## Background

**Target Background :** VEGF-A121 is one of five isoforms (121, 145, 165, 189, and 206) of VEGF protein, a cytokine belonging to the Platelet Differentiation Growth Factor (PDGF) family, and existing as a disulfide-linked homodimeric glycoprotein. In contrast to the longer isoforms, VEGF-A121 is more freely diffusible, and cannot bind to heparin. In vivo, VEGF is expressed predominantly in lung, heart, kidney, and adrenal glands, and the expression of VEGF is up-regulated by a number of growth factors, including PDGF, Fibroblast Growth Factor (FGF), Epidermal Growth Factor (EGF), and Tumor Necrosis Factor (TNF). VEGF signals via binding to two tyrosine kinase receptors: the Fms-like tyrosine kinase 1 (Flt-1) and the kinase domain receptor (KDR). VEGF is a specific mitogen and survival factor, contributing to abnormal angiogenesis and cancer development.

**Synonyms :** Vascular Endothelial Growth Factor 121; VEGF-121; Vascular Permeability Factor; VPF

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