

## 32-13672: VEGF Equine

**Format :** Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 10 mM Sodium Phosphate, pH 7.5.

**Alternative Name :** VEGF-A, VPF, glioma-derived endothelial cell mitogen.

### Description

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Biological Activity: The ED50 as determined by HUVEC Proliferation is = 10 ng/mL, corresponding to a specific activity of =  $1.0 \times 10^5$  units/mg.

Vascular endothelial growth factor is an important signaling protein involved in both vasculogenesis and angiogenesis. As its name implies, VEGF activity has been mostly studied on cells of the vascular endothelium, although it does have effects on a number of other cell types (e.g. stimulation monocyte/macrophage migration, neurons, cancer cells, kidney epithelial cells). VEGF mediates increased vascular permeability, induces angiogenesis, vasculogenesis and endothelial cell growth, promotes cell migration, and inhibits apoptosis. In vitro, VEGF has been shown to stimulate endothelial cell mitogenesis and cell migration. VEGF is also a vasodilator and increases microvascular permeability and was originally referred to as vascular permeability factor. Elevated levels of this protein is linked to POEMS syndrome, also known as Crow-Fukase syndrome. Mutations in this gene have been associated with proliferative and nonproliferative diabetic retinopathy.

VEGF Equine Recombinant produced in E. Coli is a single, non-glycosylated, polypeptide chain containing 2 x 165 amino acids and having a total molecular mass of 38.6 kDa. The VEGF is purified by proprietary chromatographic techniques.

### Product Info

**Amount :** 50 µg / 10 µg

**Purification :** Greater than 95.0% as determined by SDS-PAGE.

**Storage condition :** Lyophilized VEGF although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution VEGF Human should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Amino Acid :** MAPMAEGEHK THEVVKFMDV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCGGC  
CNDEGLECVPTAEFNITMQI MRLKPHQSQH IGEMSFLQHS KCECRPKKDK ARQENPCGPC  
SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ LELNERTCRC DKPRR

### Application Note

It is recommended to reconstitute the lyophilized VEGF in sterile water at a concentration of 0.1 mg/ml, which can then be further diluted to other aqueous solutions.