

DATASHEET
Version 20181206**VEGF-A164, Mouse****Cat. No.:** Z03345-50**Size:** 50.0 ug

Synonyms: Vascular Endothelial Growth Factor, VPF, Folliculostellate cell-derived growth factor, Glioma-derived endothelial cell mitogen

Description:

Vascular Endothelial Growth Factor (VEGF) is a potent growth and angiogenic cytokine. It stimulates proliferation and survival of endothelial cells, and promotes angiogenesis and vascular permeability. Expressed in vascularized tissues, Vascular Endothelial Growth Factor (VEGF) plays a prominent role in normal and pathological angiogenesis. Substantial evidence implicates Vascular Endothelial Growth Factor (VEGF) in the induction of tumor metastasis and intra-ocular neovascular syndromes. Vascular Endothelial Growth Factor (VEGF) signals through the three receptors; fms-like tyrosine kinase (flt-1), KDR gene product (the murine homolog of KDR is the flk-1 gene product) and the flt4 gene product. Recombinant Mouse Vascular Endothelial Growth Factor A164 (VEGF-A164) produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 165 amino acids. A fully biologically active molecule, recombinant Mouse VEGF-A164 has a molecular mass of 19.4 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

```
00001 MAPTTEGEQK SHEVIKFM DV YQRSYCRPIE TLVDIFQEYP
00041 DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNITMQI
00081 MRIKPHQSQH IGEMSFQHS RCECRPKKDR TKPEKHCEPC
00121 SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ LELNERTCRC
00161 DKPRR
```

Source: *E. coli*

Biological Activity: The ED₅₀ < 5 ng/mL, measured by a cell proliferation assay using HUVEC Cells, corresponding to a specific activity of > 2 × 10⁵ units/mg.

Molecular Weight: 19.4 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O or PBS at 100 µg/ml.

Purity: > 98% as analyzed by SDS-PAGE.

Endotoxin Level: <0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant Mouse Vascular Endothelial Growth Factor A164 (VEGF-A164) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, Mouse VEGF-A164 should be stable 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) can be added. Avoid repeated freeze-thaw cycles.