

VEGF164, Mouse (*P. pastoris*-expressed)

Cat. No.: Z02690-100

Size: 100.0 ug

Synonyms: 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 (rmVEGF-A164) produced in *Pichia pastoris* is a disulfide-linked homodimer containing two polypeptide chains of 165 amino acids each. A fully biologically active molecule, rmVEGF-A164 has a molecular mass of 39kDa analyzed by non-reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript

Amino Acid Sequence:

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00001 MAPTTEGEQK SHEVIKFMVD YQSYCRPIE TLVDIFQEYP
00041 DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNITMQI
00081 MRIKPHQSQH IGEMSLQHS RCECRPKKDR TKPEKHCEPC
00121 SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ LELNERTCRC
00161 DKPRR
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Source: *P. pastoris*

Species: Mouse

Biological Activity: Resuspend cells in assay media (Earle Salts 199X Gibco #11150, without h-EGF) containing 10 % HI-FBS and transfer 100 ul/well to assay plate (5,100 cells/well passage#2). Serial dilute murine VEGF in assay media containing 10 % HI-FBS and transfer 100ml/well to cells in assay plate. Final assay volume is 200 ml/well, containing 10 % HI-FBS, and murine VEGF as indicated 89 hours. Add 20 ml of Promega Substrate Cell Titer 96 Aqueous One Solution Reagent to each well, Incubate 37°C and read at OD 490 nm. The ED50 for the effect is typically 4.1 - 6.2 ng/ml.

Molecular Weight: 39kDa, observed by non-reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against 25 mM HEPES and 150 mM NaCl, pH 7.0.

Reconstitution: Reconstituted in ddH₂O at 100 µg/ml.

Purity: > 97% as analyzed by reducing SDS-PAGE

Endotoxin Level: <1.0 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant mouse Vascular Endothelial Growth Factor A164 (rmVEGF-A164) remains stable up to 12 months at lower than -70°C from date of receipt. Upon reconstitution, rmVEGF-A164 should be stable up to 4 week at 4°C or up to 6 months at -20°C.