Overview

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
Species	Mouse
Source	*P. pastoris*
Biological Activity	ED_{50} <6.0 ng/ml, measured by the dose-dependent stimulation of the proliferation of HUVEC cells, corresponding to a specific activity of > 1.7x 10^5 units/mg.
Sequence	MAPTTEGEQK SHEVIKFMDV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNITMQI MRIKPHQSQH IGEMSFLQHS RCECRPKKDR TKPEKHCEPC SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ LELNERTCRC DKPRR

Properties

Measured Molecular Weight	39kDa, observed by non-reducing SDS-PAGE.
Purity	> 97% as analyzed by reducing SDS-PAGE
Formulation	Lyophilized after extensive dialysis against 25 mM HEPES and 150 mM NaCl, pH 7.0.
Reconstitution	Reconstituted in ddH_2O at 100 µg/ml.
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.

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