

Recombinant Mouse Vascular Endothelial Growth Factor A

Cat. No. Vegfa-5533M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant mouse Vegfa is produced in serum-free adapted Sf9 cells and purified via sequential chromatography.
Species	Mouse
Source	Sf9 Cells
Description	This gene is a member of the platelet-derived growth factor (PDGF)/vascular endothelial growth factor (VEGF) family and encodes a protein that is often found as a disulfide linked homodimer. This protein is a glycosylated mitogen that specifically acts on endothelial cells and has various effects.
Form	Lyophilized, carrier free.
Purity	> 95% as determined by SDS-PAGE analysis.
Molecular Weight	38.8 kDa (homodimer), 164 amino acid residues/subunit.
Endotoxin Level	< 0.1 ng/μg
Biological Activity	ED50 range 1-6 ng/ml, determined by the dose dependent proliferation of human umbilical vein cells (HUVEC). Optimal concentration for individual application should be determined by a dose response assay.
Sterility	Filtered prior to lyophilization through a 0.22 micron sterile filter.

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Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Lyophilized mVEGF should be reconstituted to 0.1-1.0 mg/ml in sterile deionized water or appropriate buffered solution containing 0.1% BSA to regain full activity. These stock solutions should be apportioned into working aliquots and stored at $\leq -20^{\circ}\text{C}$. Further dilutions should be made in low endotoxin medium or buffered solution with FBS or tissue culture grade BSA. The optimal concentration should be determined for each specific application.
Storage	Lyophilized mVEGF should be stored at $2-8^{\circ}\text{C}$, preferably desiccated. Store reconstituted mVEGF at $\leq -20^{\circ}\text{C}$ (not in a frost-free freezer). Keep freeze-thaw cycles to a minimum.
Official Symbol	Vegfa
Pathways	Bladder cancer; Cytokine-cytokine receptor interaction; Endochondral Ossification; Focal Adhesion; Focal adhesion; Hemostasis; Hypertrophy Model; Id Signaling Pathway; Neuropilin interactions with VEGF and VEGFR; PI3K/Akt/mTOR signaling pathway; Pancreatic cancer; Pathways in cancer; Platelet activation; Platelet degranulation; Renal cell carcinoma
GENE INFORMATION	
Gene Name	Vegfa vascular endothelial growth factor A [Mus musculus]
Synonyms	Vegfa; vascular endothelial growth factor A; Vpf; Vegf; Vegf120; Vegf164; Vegf188; vascular endothelial growth factor A; OTTMUSP00000017463; OTTMUSP00000017464; OTTMUSP00000022243; OTTMUSP00000022244; OTTMUSP00000022245; vascular permeability factor; Vascular endothelial growth factor A; Vascular permeability factor

Gene ID	22339
mRNA Refseq	NM_001025250
Protein Refseq	NP_001020421
UniProt ID	Q00731
Chromosome Location	17 C; 17 24.2 cM
Function	cell surface binding;chemoattractant activity; cytokine activity; fibronectin binding; growthfactor activity; heparin binding; platelet-derived growth factor receptorbinding; protein heterodimerization activity; protein homodimerizationactivity; vascular endothelial growth factor receptor 1 bindingvascularendothelial growth factor receptor 2 binding; vascular endothelial growthfactor receptor binding
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