Recombinant Mouse Vascular Endothelial Growth Factor A

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

SPECIFICATION

Product Overview	Recombinant mouse Vegfais produced in serum-free adapted Sf9 cells and purified via sequentialchromatography.
Species	Mouse
Source	Sf9 Cells
Description	This gene is amember of the platelet-derived growth factor (PDGF)/vascular endothelialgrowth factor (VEGF) family and encodes a protein that is often found as adisulfide linked homodimer. This protein is a glycosylated mitogen thatspecifically acts on endothelial cells and has various effects.
Form	Lyophilized, carrierfree.
Purity	> 95% asdetermined by SDS-PAGE analysis.
Molecular Weight	38.8 kDa(homodimer), 164 amino acid residues/subunit.
Endotoxin Level	< 0.1 ng/μg
Biological Activity	ED50range 1-6 ng/ml, determined by the dose dependent proliferation of humanumbilical vein cells (HUVEC). Optimal concentration for individualapplication should be determined by a dose response assay.
Sterility	Filtered prior tolyophilization through a 0.22 micron sterile filter.

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Reconstitution	We recommend thatthis vial be briefly centrifuged prior to opening to bring the contents tothe bottom. Lyophilized mVEGF should be reconstituted to 0.1-1.0 mg/ml insterile deionized water or appropriate buffered solution containing 0.1% BSAto regain full activity. These stock solutions should be apportioned intoworking aliquots and stored at ≤-20oC. Further dilutions should be made inlow endotoxin medium or buffered solution with FBS or tissue culture gradeBSA. The optimal concentration should be determined for each specificapplication.
Storage	Lyophilized mVEGFshould be stored at 2-8°C, preferably desiccated. Store reconstituted mVEGFat ≤ -20°C (not in a frost-free freezer). Keep freeze-thaw cycles to aminimum.
OfficialSymbol	Vegfa
Pathways	Bladder cancer; Cytokine-cytokinereceptor interaction; Endochondral Ossification; Focal Adhesion; Focaladhesion; Hemostasis; Hypertrophy Model; Id Signaling Pathway; Neurophilininteractions with VEGF and VEGFR; PI3K/Akt/mTOR signaling pathway; Pancreaticcancer; Pathways in cancer; Platelet activation; Platelet degranulation; Renalcell carcinoma

GENE INFORMATION

Gene Name	Vegfa vascular endothelialgrowth factor A [Mus musculus]
Synonyms	Vegfa;vascular endothelial growth factor A; Vpf; Vegf; Vegf120; Vegf164; Vegf188; vascularendothelial growth factor A; OTTMUSP00000017463; OTTMUSP00000017464;OTTMUSP00000022243; OTTMUSP00000022244; OTTMUSP00000022245; vascularpermeability factor; Vascular endothelial growth factor A; Vascular permeability factor

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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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