
Mouse VEGF120 Recombinant Protein

Catalog Number: 14-8351

Also Known As: Vascular endothelial growth factor

RUO: For Research Use Only

Product Information

Contents: Mouse VEGF120 Recombinant Protein

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Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in a sterile environment

Source: E. coli expressed amino acids ala 27-arg 146 of mature mouse VEGF120 (accession # S38100).

Molecular Mass: The protein is not methionylated at the N-terminal and has a predicted molecular mass of 14,071. The DTT reduced protein migrates as a 14 kDa polypeptide on SDS-PAGE. The cystine-linked homodimer migrates as a 28 kDa protein on non-reduced SDS-PAGE.

Purity: Greater than 98% as determined by SDS-PAGE


Endotoxin Level: Less than 0.01 ng/ug cytokine as determined by the LAL assay.

Bioactivity: This recombinant mouse VEGF120 has been tested in bioassay for induction of proliferation of human umbilical vein endothelial cells. The ED₅₀ for this effect is typically 8.0 ng/ml.

Formulation: Sterile liquid: 50mM acetate, 0.1M NaCl, pH 5 and 1.0% BSA. 0.22 µm filtered.

 Temperature Limitation: Store at less than or equal to -70°C.

LOT Batch Code: Refer to Vial

 Use By: Refer to Vial

Description

Vascular endothelial growth factor (VEGF), also called vascular permeability factor (VPF), is produced by cultured vascular smooth muscle cells. From analysis of transcripts from these cells by PCR and cDNA cloning, 3 different forms of the VEGF coding region have been identified. These cDNAs had predicted products of 189, 165, and 121 amino acids. VEGF is a mitogen primarily for vascular endothelial cells. It is structurally related to platelet-derived growth factor. VEGF, a homodimeric glycoprotein of relative molecular mass 45,000, is the only mitogen that specifically acts on endothelial cells. The VEGF receptor, Flk1, is exclusively expressed in endothelial cells. VEGF may be a major regulator of tumor angiogenesis in vivo.

Applications Tested

This recombinant mouse VEGF120 has been tested in bioassay for induction of proliferation of human umbilical vein endothelial cells. The ED₅₀ for this effect is typically 8.0 ng/ml.

References

- Tischer, E., et al. 1991. The human gene for vascular endothelial growth factor: multiple protein forms are encoded through alternative exon splicing. *J. Biol. Chem.* 266: 11947-11954.
- Millauer, B., et al. 1994. Glioblastoma growth inhibited in vivo by a dominant-negative Flk-1 mutant. *Nature* 367: 576-579.
- Folkman, J. 1995. Angiogenesis in cancer, vascular, rheumatoid and other disease. *Nature Med.* 1: 27-31.

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