

VEGF120, Mouse

Cat. No.: Z02779-1

Size: 1.0 mg

Synonyms: Vascular Endothelial Growth Factor 120 (VEGF120), Mouse;

Description:

VEGF was initially purified from media conditioned by normal bovine pituitary folliculo-stellate cells and by a variety of transformed cell lines as a mitogen specific for vascular endothelial cells. It was subsequently found to be identical to an independently discovered vascular permeability factor (VPF), which was previously identified in media conditioned by tumor cell lines based on its ability to increase the permeability of capillary blood vessels. Three mouse cDNA clones, which arise through alternative splicing and which encode mature mouse monomeric VEGF having 120, 164, or 188, amino acids, respectively, have been identified. Two receptor tyrosine kinases (RTKs), Flt-1 and Flk-1 (the mouse homologue of human KDR), both members of the type III subclass of RTKs containing seven immunoglobulin-like repeats in their extracellular domains, have been shown to bind VEGF with high affinity. The roles of the homodimers of KDR, Flt, and the heterodimer of KDR/Flt in VEGF signal transduction remain to be elucidated. In vivo, VEGF has been found to be a potent angiogenesis inducer.

Amino Acid Sequence:

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00001 MAPTTEGEQK SHEVIKFM DV YQRSYCRPIE TLVDIFQEYP  
00041 DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNITMQI  
00081 MRIKPHQSQH IGEMSFQHS RCECRPKKDR TKPEKCDKPR  
00121 R
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Source: *E. coli*

Species: Mouse

Biological Activity: Fully biologically active when compared to standard. The ED₅₀ as determined by a cell proliferation assay using human umbilical vein endothelial cells (HUVEC) is less than 5 ng/ml, corresponding to a specific activity of > 2.0 × 10⁵ IU/mg.

Molecular Weight: Approximately 28.4 kDa, a disulfide-linked homodimeric protein consisting of two 121 amino acid polypeptide chains (Met start).

Formulation: Lyophilized from a 0.2 µm filtered solution in PBS, pH 7.4.

Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Purity: > 96 % by SDS-PAGE and HPLC analyses.

Endotoxin Level: Less than 1 EU/µg of rMu-VEGF120 as determined by LAL method.

Storage: This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated freeze/thaw cycles.