

Recombinant Murine Vascular Endothelial Growth Factor 120

Information

Gene ID	
Accession #	Q00731
Alternate Names	Vascular endothelial growth factor isoform 120
Source	Escherichia coli.
M.Wt	Approximately 28.4 kDa, a disulfide-linked homodimeric protein consisting of two 121 amino acid polypeptide chains with Met at N-terminus.
AA Sequence	MAPTTEGEQK SHEVIKFM DV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNITMQI MRIKPHQSQH IGEMSFLQHS RCECRPKKDR TKPEKCDKPR R
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS, pH 7.4.
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.
Biological Activity	Fully biologically active when compared to standard. The ED 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 × 10 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10μg	100μg	500μg
Recombinant Murine Vascular Endothelial Growth Factor 120	10μg	100μg	500μg

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- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

Quality Control

Purity	> 96 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/ μ g of rMuVEGF120 as determined by LAL method.

Description

Vascular Endothelial Growth Factor is a sub-family of growth factors produced by cells that stimulates vasculogenesis and angiogenesis. VEGF's normal function is to create new blood vessels during embryonic development, new blood vessels after injury, muscle following exercise, and new vessels (collateral circulation) to bypass blocked vessels. 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. Mouse express alternately spliced isoforms of 120, 164, 182 amino acids (a.a.) in length. The VEGF120 shares 98 % a.a. sequence identity with corresponding regions of rat, 89 % with canine, feline, equine and porcine, and 87 % with human, ovine and bovine VEGF, respectively.

Reference

1. Leung DW, Cachianes G, Kuang WJ, et al. 1989. Science. 246:1306-9
2. Byrne AM, Bouchier-Hayes DJ, Harmey JH. 2005. J Cell Mol Med. 9:777-94
3. Robinson CJ, Stringer SE. 2001. J Cell Sci. 114:853-65.

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