Technical Data Sheet

Flogen® Recombinant Rat Vascular Endothelial Growth Factor 164 (rRtVEGF164)

Catalog Number:	PGR0145-007
Source:	*Escherichia coli.*
Molecular Weight:	Approximately 38.7 kDa, a disulfide-linked homodimeric protein, consisting of two 165 amino acid polypeptide chains with Met at N-terminus.
Quantity:	2μg/10μg/1000μg
AA Sequence:	MAPTTEGEQK AHEVVKFMDV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNVTMQI MRIKPHQSQH IGEMSFLQHS RCECRPKKDR TKPEKHCEPC SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ LELNERTCRC DKPRR
Purity:	> 95 % by SDSPAGE and HPLC analyses.
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 > 2.0×10^5U/mg.
Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 m filtered concentrated solution in 20 mM Tris, 300 mM NaCl, pH 8.8.
Endotoxin:	Less than 1 EU/ g of rRtVEGF164 as determined by LAL method.
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.
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.
Usage:	For research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE.**

Rat Vascular Endothelial Growth Factor 164

Vascular Endothelial Growth Factor is a sub-family of growth factors produced by cells, which 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. Mouse and rat express alternately spliced isoforms of 120, 164, and 188 amino acids (a.a.) in length. Recombinant Rat VEGF164 contains 165 amino acids residues and it is a disulfide-linked homodimer. In addition, it shares 97 % a.a. sequence identity with corresponding regions of mouse, 88 % with human and bovine, 89 % with porcine and canine, and 90 % with feline and equine VEGF, respectively.