

Rat VEGF₁₂₀

Synonyms: Vascular Endothelial Growth Factor A, Vegfa, Vegf, VEGF120

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
2 µg	4001.970.002		
5 µg	4001.970.005		
20 µg	4001.970.020		

Please enquire for bulk quantities and other vial sizes

Description

Rat Vascular Endothelial Growth Factor120 (VEGF120), a 14.1 kDa protein consisting of 120 amino acid residues, is produced as a homodimer. VEGF120 is a polypeptide growth factor and a member of the platelet-derived growth factor family. It is a specific mitogen for vascular endothelial cells and a strong angiogenic factor in vivo. Two high-affinity tyrosine kinase receptors for VEGF120 have been identified, VEGFR-1 (FLT-1), and VEGFR-2 (Flk-1). Consistent with the endothelial cell-specific action of VEGF120, expression of both receptor genes has been found predominantly but not exclusively on endothelial cells. Expression of VEGFR-1 was also found on human monocytes, neutrophils (PMNs), bovine brain pericytes and villous and extravillous trophoblasts. In addition to its action as a mitogen it is a potent vascular permeability factor (VPF) in vivo and is also a chemo attractant for monocytes and endothelial cells. At least four different proteins are generated by differential splicing of the mouse VEGF gene: VEGF120, VEGF144, VEGF164 and VEGF188. The most abundant form is VEGF164. Whereas VEGF120, VEGF144 and VEGF164 are secreted proteins, VEGF188 is strongly cell-associated. In addition, the isoforms VEGF164 and VEGF188 bind to heparin with high affinity. All dimeric forms possess similar biological activities. A related protein of VEGF is placenta growth factor (PIGF) with about 53% homology and VEGF-B with similar biological activities. The full ORF of native rat VEGF120 (Ala27-Arg146) was cloned from total RNA of rat sinusoidal endothelial cells using standard protocols.

- **Source** *E. Coli*
- **Purity** ≥ 95 % (SDS-PAGE, silver stained)

Biological Activity

Determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 2-10 ng/ml.

Reconstitution

The lyophilized VEGF120 should be reconstituted in ddH₂O to a concentration not lower than 50µg/ml.

Amino Acid Sequence

APTTEGEQKA HEVVKFMDVY QRSYCRPIET LVDIFQEYPD EIEYIFKPSC VPLMRCAGCC NDEALECVPT
 SESNVTMQIM RIKPHQSQHI GEMSFLQHSR CECRPKKDRT KPEKCDKPRR

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

ORDERING
 Tel.: +49 40 43208448-0
 order@active-bioscience.de
 www.active-bioscience.de

TECHNICAL SUPPORT
 Tel.: +49 40 43208448-11
 support@active-bioscience.de

Active Bioscience GmbH
 Oberaltenallee 8
 D-22081 Hamburg
 HRB 98170 Amtsgericht Hamburg