

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant VEGF164, Rat (P. pastoris-expressed)

Catalog Number: BK0351-2 μ g

Source: P. pastoris

Quantity: 2 μ g

Description:

Vascular Endothelial Growth Factor A164 (VEGF-A164), a member of the cysteine knot growth factor[1], is one of major isoforms of VEGF-As. VEGF-As are endothelial cell-specific mitogens with angiogenic and vascular permeability-inducing properties[2]. During maturation, rat VEGF-A is alternatively spliced to generate rVEGF-A120, rVEGF-A164 and rVEGF-A188[3] which correspond to hVEGF-A121, hVEGF-A165 and hVEGF-A189 in human, respectively (the numbers designate the amino acid residues). The active form of rVEGF-A164 is either a homodimeric or heterodimeric polypeptides which bind to the transmembrane tyrosine kinases receptors FLT1, FLK1 or KDR[4] or to the non-tyrosine kinase neuropilin receptors NRP1/2[5]. Recombinant rat Vascular Endothelial Growth Factor A164 (rrVEGF-A164) produced in P. pastoris is a disulfide-linked homodimer containing two polypeptide chains of 165 amino acids each. A fully biologically active molecule, rrVEGF-A164 has a molecular mass of 38 kDa analyzed by non-reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Molecular Weight:

38 kDa, observed by non-reducing SDS-PAGE.

Purity:

> 95% as analyzed by reducing SDS-PAGE.

Biological Activity:

ED50 < 4 ng/ml, measured by cell proliferation assay of HUVEC.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

MAPTTEGEQKA-
HEVVVKFMDVYQRSYCRPIETLVDIFQEYYPDEIEYI
FKP-
SCVPLMRCAGCCNDEALECVPTSESNVTMQIM-
RIKPHQSQHIGEMSFLQHSRCECRPKKDRTK-
PENHCEPCSESRKHLFVQDPQTCKCCKNTDSR
CKARQLELNERTCRCDKPRR

Endotoxin:

< 1 EU/ μ g, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O or PBS at 100 μ g/ml.

Storage:

Lyophilized recombinant rat Vascular Endothelial Growth Factor A164 (rrVEGF-A164) remains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, rrVEGF-A164 should be stable up to 1 week at 4 °C or up to 2 months at -20 °C.

Usage:

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