DATA SHEET

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GFR31 Recombinant Rat VEGF-165

Description

Vascular endothelial growth factor-A (VEGF-A) is produced by a wide variety of cell types, including tumor and vascular cells. VEGF-A is a mediator of vascular growth, vascular permeability, and plays a role in stimulating vasodilation via nitric oxide-dependent pathways. VEGF-A has several alternatively spliced isoforms, with VEGF-165 being the most abundant. The VEGF-165 isoform is a secreted protein that acts on receptors VEGFR-1 and VEGFR-2 to modulate endothelial cell proliferation and angiogenesis.

Length	165/330 aa
Molecular weight	19.4/38.7 kDa
Source	*E. coli*
Accession number	P16612-2
Purity	≥95% determined by reducing and non-reducing SDS-PAGE

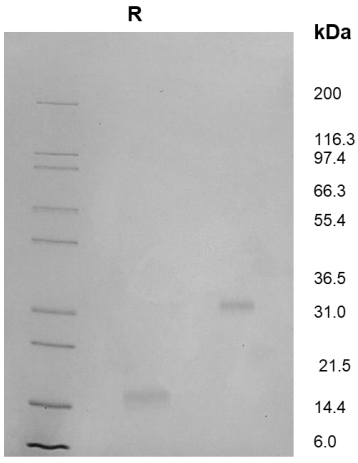
Specifications

Alternative names	VEGF-A, VPF, glioma-derived endothelial cell mitogen
Biological activity	Rat VEGF-165 is fully biologically active when compared to standard. The activity is determined by the dose-dependent proliferation of HUVEC cells and it is typically less than 8 ng/ml.
Endotoxin level	≤0.1 EU/µg as measured by kinetic LAL
Formulation	Lyophilized from a 0.2 µm filtered solution containing 10 mM sodium phosphate, pH 7.5
AA sequence	MAPTTEGEQK AHEVVKFMDV YQRSYCRPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCAGC CNDEALECVP TSESNVTMQI MRIKPHQSQH IGEMSFLQHS RCECRPKKDR TKPEKHCEPC SERRKHLFVQ DPQTCKCSCK NTDSRCKARQ LELNERTCRC DKPRR

Preparation and storage

Reconstitution	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/ml, which can be further diluted into other aqueous solutions. If a precipitate is observed, centrifuge the solution thoroughly and use only the soluble fraction (removing it from the precipitate). A 10% overfill has been added to compensate for any loss of protein in the precipitate.
Stability and Storage	12 months from date of receipt when stored at -20°C to -80°C as supplied. 1 month when stored at 4°C after reconstituting as directed. 3 months when stored at -20°C to -80°C after reconstituting as directed.

Data



SDS-PAGE Showing a Single Prominent Band at 19.4/38.7

rr VEGF-165 (1µg) was resolved *with SDS-PAGE under non-reducing (NR) and reducing (R)* conditions and visualized by Instant Blue staining showing a single prominent band at 19.4/38.7