

Datasheet: PHP293

Description:	RECOMBINANT HUMAN VEGF-A
Name:	VEGF-A
Format:	Rec. Protein
Product Type:	Recombinant Protein
Quantity:	0.2 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
ELISA	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	Purified recombinant protein - lyophilized
Reconstitution	Centrifuge vial prior to reconstitution. Reconstitute to 0.5 mg/ml by adding 0.4 ml ddH ₂ O. Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Mix gently after reconstitution. Do not vortex.
Preparation	Recombinant protein expressed in <i>E. coli</i> and purified by affinity chromatography
Buffer Solution	20 mM Phosphate Buffer, 0.1 M Sodium Chloride
Preservative Stabilisers	1% Trehalose
Approx. Protein Concentrations	0.5 mg/ml after reconstitution
External Database Links	UniProt: P15692 Related reagents

Product Information

Recombinant Human VEGF-A

Vascular endothelial growth factor alpha forms a homodimer and is a potent stimulator of angiogenesis of both normal and cancerous cells. It acts as a regulator of vasculogenesis, angiogenesis and endothelial cell growth. VEGF-A is secreted by many different cell types such as endothelial cells ([Nissen et al. 1998](#)), smooth muscle cells ([Brogi et al. 1994](#)), neutrophils ([Gaudry](#)

[et al. 1997](#)), platelets ([Banks et al. 1998](#)), macrophages and 60% of all tumours ([Berse et al. 1992](#)).

The sequence of this recombinant protein product is amino acid (aa) 27 - aa 141 + CDKPRR but deficient from aa 142-226, and it is closest to isoform 121. Isoform 121 and 111 lack exons 6 and 7, and for this reason neither of these isoforms bind to the extracellular matrix ([Krilleke et al. 2017](#)). This product has been demonstrated for use, in a pharmacokinetic (PK) antigen capture ELISA with the monoclonal antibody drugs ranibizumab and bevacizumab using [anti-ranibizumab antibodies](#) for detection.

Protein Molecular Weight	Predicted 14 kDa. The apparent molecular mass of the human VEGF-A monomer is approximately 17 kDa determined by SDS-PAGE under reducing conditions, and 17 kDa (monomer) and 30 kDa (dimer) under non-reducing conditions.
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Purity	≥90% determined by SDS-PAGE under reducing conditions and visualized by coomassie blue staining
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Amino Acid Sequence	APMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYPDEIEYIFKPSCVPLMRCGGCCNDEGLE CVPTEESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKKDRARQEKC DKPRR
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Storage	Prior to reconstitution store at -70°C. Following reconstitution store at -20°C. This product should be stored undiluted. Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the protein.
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Guarantee	Guaranteed for 3 months from the date of reconstitution or until the date of expiry, whichever comes first. Please see label for expiry date.
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Health And Safety Information	Material Safety Datasheet documentation #20395 available at: 20395: https://www.bio-rad-antibodies.com/uploads/MSDS/20395.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Useful Reagents

[HUMAN ANTI RANIBIZUMAB \(DRUG/TARGET COMPLEX\) \(HCA304\)](#)

[HUMAN ANTI RANIBIZUMAB \(HCA307\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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