

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.

Purity ≥90% determined by SDS-PAGE under reducing conditions and visualized by coomassie blue staining

Amino Acid Sequence APMAEGGGQNHHEVVKFMDVYQRSYCHPIETLVDIFQEYYPDEIEYIFKPSCVPLMRCGGCCNDEGLE
CVPTESNITMQIMRIKPHQGQHIGEMSFLQHNKCECRPKKDRARQEKC DKPRR

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.

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.

Health And Safety Information Material Safety Datasheet documentation #20395 available at: 20395: <https://www.bio-rad-antibodies.com/uploads/MSDS/20395.pdf>

Regulatory For research purposes only

Related Products

Recommended Useful Reagents

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

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

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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