

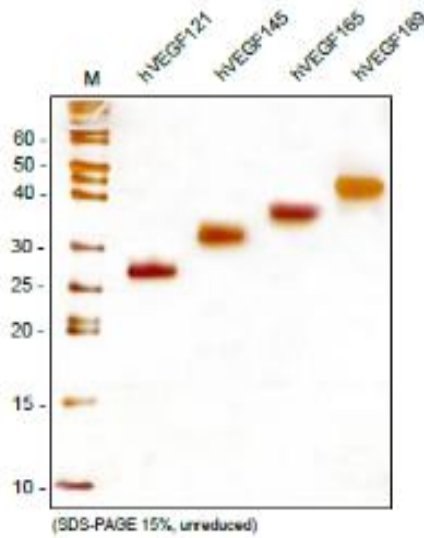
VEGFA

Recombinant Human VEGF 189

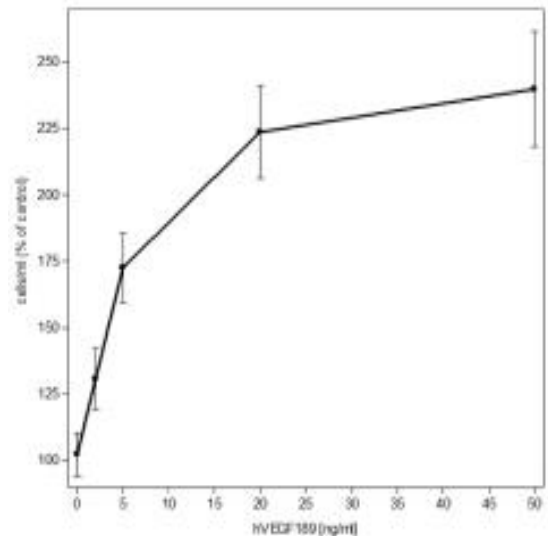
Catalog No.	CRV114A CRV114B CRV114C	Quantity:	2 µg 5 µg 20 µg
Alternate Names:	Vascular endothelial growth factor A, VEGF-A, Vascular permeability factor, VPF		
Description:	VEGF is a member of the platelet-derived growth factor family. It is a specific mitogen for vascular endothelial cells and a strong angiogenic factor <i>in vivo</i> . Five different proteins are generated by differential splicing: VEGF ₁₂₁ , VEGF ₁₄₅ , VEGF ₁₆₅ , VEGF ₁₈₉ and VEGF ₂₀₆ . The most abundant form is VEGF ₁₆₅ . Whereas VEGF ₁₂₁ and VEGF ₁₆₅ are secreted proteins, VEGF ₁₄₅ , VEGF ₁₈₉ and VEGF ₂₀₆ are strongly cell-associated. The isoforms VEGF ₁₄₅ , VEGF ₁₆₅ and VEGF ₁₈₉ bind to heparin with high affinity. VEGF ₁₆₅ is apparently a homodimer, but preparations of VEGF ₁₆₅ show some heterogeneity on SDS gels, depending on the secretion of different glycosylation patterns. All dimeric forms have similar biological activities but their bio-availability is very different. There is good evidence that heterodimeric molecules between the different isoforms also exist and that different cells and tissues express different VEGF isoforms. The other members of this increasing growth factor family are VEGF-B, -C, -D and -E. Another member is the Placenta growth factor PlGF.		
UniProt ID:	P15692-2		
Gene ID:	7422		
Source:	<i>E. coli</i>		
Molecular Weight:	~42 kDa (189 aa) homodimer,		
Formulation:	Lyophilized from 50 mM Acetic Acid		
Purity:	>98% by SDS-PAGE, visualized with silver stain		
Endotoxin Level:	< 0.1 ng/µg		
Biological Activity:	ED ₅₀ typically 2-20 ng/ml, determined by a cell proliferation assay using primary human umbilical vein endontheial cells (HUVEC)		
N Terminal Sequence:	APMAEGG		
Amino Acid Sequence:	APMAEGGGQN HHEVVKFMDV YQRSYCHPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCGGC CNDEGLECVP TEESNITMQI MRIKPHQGQH IGEMSFLQHN KCECRPKKDR ARQEKKSVRG KGKGQKRKRK KSRYSWSVP CGPCSERRKH LFVQDPQTCK CCKNTDSRC KARQLELNER TCRCDKPRR		
Applications:	Functional studies, ELISA		
Reconstitution:	Centrifuge vial prior to opening. Reconstitute in PBS or medium to a concentration no less than 50 µg/ml containing at least 0.1% HSA or BSA.		
Storage & Stability:	The lyophilized protein is stable for 1 year at -20°C to -80°C. After reconstitution, store in working aliquots at -20°C to -80°C. Avoid repeated freeze-thaw cycles.		



SDS-PAGE analysis of recombinant human VEGF-A isoforms produced in *E. coli*. Samples were loaded under non-reducing conditions in 15% SDS-polyacrylamide gel and stained with Silver stain.



VEGF189-induced proliferation of primary human dermal lymphatic endothelial cells (HDLEC). HDLECs were stimulated with increasing amounts of recombinant human VEGF189.



NOT FOR HUMAN USE. FOR RESEARCH ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.



Cell Sciences®
65 Parker Street
Unit 11
Newburyport, MA 01950

Toll Free: 888-769-1246
Phone: 978-572-1070
Fax: 978-992-0298

E-mail: info@cellsciences.com
Website: www.cellsciences.com