

Animal, Bacterial & Viral Free - Low Endotoxin - Ultra Pure - High BioActivity
VEGFA

Recombinant Human Vascular Endothelial Growth Factor A, VEGFA, Endotoxin Free

Catalog No.	CRV122A CRV122B CRV122C CRV122D	Quantity:	10 µg 50 µg 1 mg 100 µg
Alternate Names:	MVCD1, VEGF165, VPF, vascular endothelial growth factor A, vascular permeability factor		
Gene ID:	7422		
UniProtKB:	P15692		
Description:	VEGFA, Vascular endothelial growth factor A, is the only growth factor that stimulates vascular permeability. It promotes endothelial proliferation and survival, angiogenesis, vasculogenesis and inhibits apoptosis. VEGF mitogenic activity is specific for endothelial cell and that makes it distinct among other growth factors. VEGF is thought to be important in the pathophysiology of neuronal and other tumors, by functioning as a promoter of angiogenesis for human gliomas. Human VEGF occurs in several molecular variants and the 165 form is the most common form in most tissues. Biological activities of VEGF are not species-specific and glycosylation is not required for biological activity.		
Source:	<i>Hordeum vulgare</i> (barley grain). Barley grain exhibits up to 50 times less protease activity than <i>E. coli</i> or mammalian cells. Barley seed is void of any human or animal viral contaminants that could jeopardize stem cell culture.		
Molecular Weight:	Recombinant human VEGFA contains 165 amino acids and a 16 aa His-tag for a total length of 181 aa and a predicted molecular mass of 21.3 kD. As a result of glycosylation, the recombinant protein migrates at 26-28 kD in SDS-PAGE.		
Formulation:	Sterile filtered through a 0.2 µm filter. Lyophilized from PBS pH 7.2		
Purity:	>95% by SDS-PAGE.		
Endotoxin Level:	<0.005 ng/µg of VEGF (0.05 EU/µg)		
Contaminants:	Purified product carries no pyrogenic or pro-inflammatory contaminants, as assayed with monocyte activation test using custom human Multiplex Cytokine Assay measuring IL6, TNF alpha and IL1 beta induction.		
Biological Activity:	ED ₅₀ is < 20 ng/ml. Bioactivity was determined by the dose dependent effect of recombinant human VEGFA on proliferation of Human Umbilical Vein Endothelial Cells (HUVEC) cells.		
Specific Activity:	> 5.0 x 10 ⁴ U/mg		
Reconstitution:	Centrifuge vial prior to opening. It is recommended to reconstitute the lyophilized protein in sterile water to a concentration of no less than 100 µg/ml. For long term storage of the reconstituted solution it is recommended to add a carrier protein (0.1% HSA or BSA). Please note that the addition of any carrier protein into this product may introduce endotoxin. Depending upon the particular application employed, this may be undesirable.		

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Storage & Stability: Store lyophilized protein desiccated at -20°C. Store reconstituted protein in working aliquots at -20°C. **Avoid repeated freeze-thaw cycles.**

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



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