

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

VEGFA

Recombinant Human Vascular Endothelial Growth Factor HQ Tagged

Catalog No.	CRV122A	Quantity:	10 µg
	CRV122B		50 µg
	CRV122C		1 mg

Gene ID: 7422

Description: VEGF (Vascular endothelial growth factor) 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: *Hordeum vulgare* (barley grain). Barley grain exhibits up to 50 times less protease activity than *E. coli* or mammalian cells. Barley seed is void of any human or animal viral contaminants that could jeopardize cell culture.

Molecular Weight: Recombinant human VEGF165 contains 165 amino acids and a 16 a.a. Histidine-based tag for a total length of 181 a.a. and has a predicted molecular mass of 21.3 kDa. As a result of glycosylation, the recombinant protein migrates with an apparent molecular

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: Bioactivity is assayed by measuring the dose dependent effect of recombinant human VEGF 165 on proliferation of Human Umbilical Vein Endothelial Cells (HUVEC) cells. This batch of growth factor was tested by an independent company and exhibits an ED50 of 11.6 ng/ml corresponding to 0.8 x 10⁵ U/mg specific activity, a value comparable to their in-house standard measured in parallel. Optimal concentration should be determined for specific applications and cell lines.

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).

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.