Recombinant Human VEGF (121aa)

Cat No:HR2R2056

For research use only

Overview

Quantity	25 ?g
Gene Symbol	VEGFA
Gene ID	7422
Accession	P15692
Alternative Name	Vascular endothelial growth factor A, VEGF-A, Vascular permeability factor, VPF Recombinant Human Vascular Endothelial Growth Factor 165AA (VEGFA)
Species	Human
Source	CHO cells
Description	VEGF is a homodimeric heavily glycosylated protein. The human factor occurs in several molecular variants of 121, 162, 145, 148, 165, 183, 189, 206 amino acids, arising by alternative splicing of the mRNA.The splice forms of VEGF differ in biological properties such as the receptor types, which they recognize and their interaction with heparan sulfate proteoglycans. The 165 amino acid form of the factor is the most common form in most tissues. Kaposi sarcomas express VEGF121 and VEGF165. VEGF121 and VEGF165 are soluble secreted forms of the factor while VEGF189 and VEGF206 are mostly bound to heparin-containing proteoglycans in the cell surface or in the basement membrane. A high-affinity glycoprotein receptor of 170-235 kDa is expressed on vascular endothelial cells. The interaction of VEGF with heparin-like molecules of the extracellular matrix is required for efficient receptor binding. Protamine sulfate and suramin are capable of replacing the receptor-bound factor. The high-affinity receptor for VEGF, now known as VEGFR1, has been identified as the gene product of the FLT-1. Another receptor for VEGF, now known as VEGFR2, is KDR, also known as FLK-1. A factor that competes with the 165 amino acid form of VEGF for receptor binding is PLGF. A third receptor type, VEGFR3 is known also as FLT-4. An isoform-specific receptor for VEGF165 has been identified as human Neuropilin-1.
Functions	The ED(50) was determined by the dose-dependent proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 1-10 ng/mL.
Formulation	Recombinant VEGF was lyophilized from 0.2 ?m filtered 20 mM PB solution, pH 7.0.
Solubility	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Appearance	Lyophilized Powder
Molecular Weight	19
Purity	>95% as determined by SDS-PAGE
Concentration	<1.0 EU/?g of recombinant protein as determined by the LAL method.

Shipping Condition	Ambient Temperature
Storage Condition	The lyophilized protein is stable for at least one year from date of receipt at -70?C. Upon reconstitution, this cytokine can be stored in working aliquots at 2? - 8?C for one month, or at -20?C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.

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