

32-1827: VEGF HEK Recombinant Protein

Alternative Name : Vascular endothelial growth factor A, VEGF-A, Vascular permeability factor, VPF, VEGF, MGC70609.

Description

Source : HEK293 (Human Embryonic Kidney cell line). Vascular Endothelial Growth Factor Human Recombinant produced in HEK293 cells is a double, glycosylated, polypeptide chain containing 165 amino acids (27-191) and having a molecular mass of 40 kDa. The VEGF is purified by proprietary chromatographic techniques. Vascular endothelial growth factor is an important signaling protein involved in both vasculogenesis and angiogenesis. As its name implies, VEGF activity has been mostly studied on cells of the vascular endothelium, although it does have effects on a number of other cell types (e.g. stimulation monocyte/ macrophagemigration, neurons, cancer cells, kidney epithelial cells). VEGF mediates increased vascular permeability, induces angiogenesis, vasculogenesis and endothelial cell growth, promotes cell migration, and inhibits apoptosis. In vitro, VEGF has been shown to stimulate endothelial cell mitogenesis and cell migration. VEGF is also a vasodilator and increases microvascular permeability and was originally referred to as vascular permeability factor. Elevated levels of this protein are linked to POEMS syndrome, also known as Crow-Fukase syndrome. Mutations in this gene have been associated with proliferative and nonproliferative diabetic retinopathy.

Product Info

Amount :	10 µg
Purification :	Greater than 95.0% as determined by SDS-PAGE.
Content :	The protein was lyophilized from a 0.2mM filtered solution of 20mM PB, 150mM NaCl, pH 7.2.
Storage condition :	Lyophilized Vascular Endothelial Growth Factor HEK although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution VEGF HEK should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
Amino Acid :	APMAEGGGQN HHEVVKFMDV YQRSYCHPIE TLVDIFQEYP DEIEYIFKPS CVPLMRCGGC CNDEGLECVPT TEESNITMQI MRIKPHQGQH IGEMSFLQHN KCECRPKKDR ARQENPCGPC SERRKHLFVQ DPQTCKCCK NTDSRCKARQ LELNERTCRC DKPRR.

Application Note

It is recommended to reconstitute the lyophilized Vascular Endothelial Growth Factor-HEK in sterile 18M-cm H₂O not less than 100Åµg/ml, which can then be further diluted to other aqueous solutions. Determined by the dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 4.0ng/ml, corresponding to a specific activity of 2.5 x 10⁵ Units/mg.

