Recombinant Protein Technical Manual

Recombinant Human VEGF-A/VEGF121 Protein (Active)

RPES2485

Product Data:

Product SKU: RPES2485

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: P15692

Protein Information:

Molecular Mass:	14.2 kDa
AP Molecular Mass:	16 kDa
Tag:	
Bio-activity:	Immobilized Human VEGF121 at 2µg/ml(100 µl/well) can bind Human VEGFR1-Fc(Cat: PKSH033445). The ED50 of Human VEGF121 is 0.08µg/mL.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg as determined by the LAL method.
Storage:	Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping:	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation:	Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	Functional ELISA
Synonyms:	Vascular endothelial growth factor A;VEGFA;VEGF-A;Vascular permeability factor;VPF;VEGF;VEGF121

Immunogen Information:

Sequence: Ala27-Arg147

Background:

Human VEGF121, also known as Vascular endothelial growth factor A, VEGFA, Vascular permeability factor, VPF and VEGF, is a homodimeric, heparin-binding glycoprotein which belongs to the platelet-derived growth factor (PDGF)/vascular endothelial growth factor (VEGF) family. VEGF-A is a glycosylated mitogen that specifically acts on endothelial cells and has various effects, including mediating increased vascular permeability, inducing angiogenesis, vasculogenesis, permeabilization of blood vessels and endothelial cell growth, increasing microvascular permeability, promoting cell migration and inhibiting apoptosis. Alternatively spliced transcript variants of VEGF-A encod either secreted or cell-associated isoforms. The lymphangiogenesis may be promoted by upregulation of VEGF121, which may in turn act in part via induction of VEGF-C. It binds to the FLT1/VEGFR1 and KDR/VEGFR2 receptors, heparan sulfate and heparin. NRP1/Neuropilin binds isoforms VEGF65 and VEGF45. Isoform VEGF165B binds to KDR but does not activate downstream signaling pathways, does not activate angiogenesis and inhibits tumor growth.