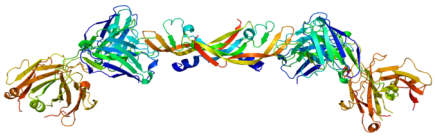
Recombinant Human Vascular Endothelial Growth Factor (a. a. 165)

Human, Antigen (VEGFA)
Cat. No: DAG304
Lot.No: (See product label)



PDB rendering based on 1bj1.

PRODUCT INFORMATION

Product Overview: Recombinant Human VEGFA is a double, non-glycosylated, polypeptide chain containing 165 amino acids and having a molecular weight of 38,231Da, was expressed in E. coli. The sequence of the first five N-terminal amino acids was determined to be Ala-Pro-Met-Ala-Glu. Contains less than 1% dimers and aggregates.
Antigen Description: Vascular endothelial growth factor (VEGF) is a signal protein produced by cells that stimulates vasculogenesis and angiogenesis. It is part of the system that restores the oxygen supply to tissues when blood circulation is inadequate.
Form: Purified, Lyophilized. Reconstitute using sterile deionized water to a concentration ≥100ug/ml. Further dilutions can be made in other aqueous buffers.
Source: E. coli
Purification: >98% pure (HPLC and SDS-PAGE). Product is sterile filtered.
Inactivation: Not applicable
Applications: Biological activity is determined by dose-dependent stimulation of the proliferation of human umbilical vein endothelial cells (HUVEC) using a concentration range of 1.0-8.0ng/ml. Each laboratory should determine an optimum working titer for use in its particular application. Other applications have not been tested but use in such assays should not necessarily be excluded.

PACKAGING

Concentration: 1mg/ml (OD280nm, $E^{0.1\%}$ = 0.2875) (prior to lyophilization)
Buffer: Not applicable
Preservative: None
Storage: The lyophilized product, though stable for 3 weeks at room temperature, is best stored at -20°C. After reconstitution, short term (up to 1 week) store at 2–8°C. Long term, add 0.1% HSA or BSA, aliquot and store at -20°C. Avoid multiple freeze/thaw cycles.

GENE INFORMATION

Gene Name: VEGFA vascular endothelial growth factor A [*Homo sapiens*]
Official Symbol: VEGFA
Synonyms: VEGFA; vascular endothelial growth factor A; VPF; VEGF; MVCD1; MGC70609; OTTHUMP00000016487; OTTHUMP00000016488; OTTHUMP00000165985; OTTHUMP00000165986; OTTHUMP00000165987; OTTHUMP00000224107; OTTHUMP00000224108; OTTHUMP00000224109; OTTHUMP00000224153; OTTHUMP00000224154; OTTHUMP00000224423; OTTHUMP00000224424; OTTHUMP00000224425; OTTHUMP00000224426; OTTHUMP00000224427; OTTHUMP00000224428; OTTHUMP00000224429; OTTHUMP00000224430; vascular permeability factor; VEGF-A; Vascular Endothelial Growth Factor
GeneID: 7422
mRNA Refseq: NM_001025366
Protein Refseq: NP_001020537
MIM: 192240
UniProt ID: P15692
Chromosome Location: 6p12
Pathway: Bladder cancer; Cytokine-cytokine receptor interaction; Endochondral Ossification
Function: cell surface binding; chemoattractant activity; cytokine activity; extracellular matrix binding; fibronectin binding; growth factor activity; heparin binding; platelet-derived growth factor receptor binding; protein binding; protein heterodimerization activity; protein homodimerization activity; vascular endothelial growth factor receptor 1 binding; vascular endothelial growth factor receptor 2 binding; vascular endothelial growth factor receptor binding

REFERENCES

1. Claesson-Welsh, L. (20 August 2008). "VEGF-B Taken to Our Hearts: Specific Effect of VEGF-B in Myocardial Ischemia". Arteriosclerosis, Thrombosis, and Vascular Biology 28 (9): 1575–1576.
2. Holmes, Katherine; Roberts, Owain Ll; Thomas, Angharad M.; Cross, Michael J. (2007). "Vascular endothelial growth factor receptor-2: Structure, function, intracellular signalling and therapeutic inhibition". Cellular Signalling 19 (10): 2003–12.

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