Human CellExp™ VEGF 165, Human Recombinant

CATALOG NO:

6485-10	10 µg
6485-50	50 µg
6485-1000	1000 µg

ALTERNATE NAMES: Vascular endothelial growth factor A, MVCD1, VEGF, VEGF165, VPF, MGC70609, Vascular Endothelial Growth Factor A precursor, Vascular Permeability Factor, VEGFA

SOURCE: HEK 293 cells (Ala 27 - Arg 191)

PURITY: > 95% by SDS-PAGE

MOL. WEIGHT (MW): This protein is fused with polyhistidine tag at the C-terminus and has a calculated MW of ~20 kDa (27 -191 aa). Under reducing and non-reducing conditions the protein migrates as a ~25 kDa (monomer) and ~45 kDa band (homodimer) in SDS-PAGE.

FORM: Lyophilized

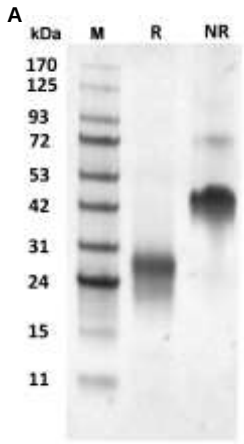
FORMULATION: Lyophilized from 0.22 µm filtered solution in PBS pH 7.4

STORAGE CONDITIONS: Store at -20°C. After reconstitution, aliquot and store at -80°C. Avoid repeated freezing and thawing cycles.

RECONSTITUTION: Centrifuge the vial prior to opening. Reconstitute at 0.2-0.3 mg/mL in distilled water is recommended.

DESCRIPTION: Vascular Endothelial Growth Factor (VEGF) plays a key role in tumor angiogenesis in many cancers. The VEGF family consists of seven secretory glycoproteins: VEGF-A, VEGF-B, VEGF-C, VEGF-D, VEGF-E, VEGF-F and Placental Growth Factor (PlGF). The binding of VEGF and its receptors leads to activation of the PI3K/AKT, p38 MAPK, FAK and paxillin. VEGFA/VEGF165 is a heparin-binding protein, which exists as a disulfide-linked homodimer. It induces proliferation and migration of vascular endothelial cells, and is essential for both physiological and pathological angiogenesis. Diseases associated with VEGFA/VEGF165 include microvascular complications of diabetes 1 (MVCD1) and atherosclerosis. It is also related to the integrated Breast Cancer Pathway.

BIOLOGICAL ACTIVITY: EC_{50} is 600 ng/ml. The activity was determined by the dose-dependent stimulation of the proliferation of EA.hy926 human endothelial cells.



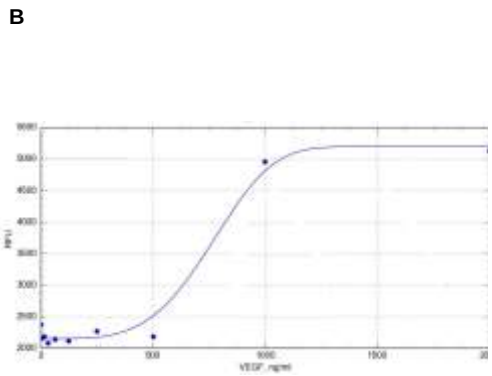


Fig A. SDS-PAGE (4-20%) of Human Recombinant VEGF 165: 2 ug of recombinant protein loaded under reducing (Lane R) and non-reducing conditions (Lane NR) and stained with Coomassie Blue. Under reducing and non-reducing conditions the protein migrates as a ~25 kDa (monomer) and ~45 kDa band (homodimer), respectively.

Fig B. BIOLOGICAL ACTIVITY: The activity was determined by the dose-dependent stimulation of the proliferation of EA.hy926 human endothelial cells with EC_{50} 600 ng/ml.

RELATED PRODUCT:

- Human CellExp™ Human Recombinant VEGF 121 **(Cat. No. 6484-10, -50)**
- VEGF121, human recombinant **(Cat. No. 4963-10, -50, -1000)**
- VEGF165, human recombinant **(Cat. No. 4363-10, -50, -1000)**
- VEGF165, murine recombinant **(Cat. No. 4364-10, -50, -1000)**
- VEGF165, rat recombinant **(Cat. No. 4365-10, -50, -1000)**
- VEGF120, murine recombinant **(Cat. No. 4964-10, -100, -1000)**
- VEGF-B, human recombinant **(Cat. No. 4642-10, -20, -1000)**
- VEGF-C, human recombinant **(Cat. No. 4633-10, -50, -1000)**
- VEGF-C, murine recombinant **(Cat. No. 4634-10, -50, -1000)**
- VEGF-C, rat recombinant **(Cat. No. 4635-10, -50, -1000)**
- VEGF-D, human recombinant **(Cat. No. 4343-10, -50, -1000)**

FOR RESEARCH USE ONLY! Not to be used on humans.