Rev05
Update: Mar,21,2022

DATASHEET

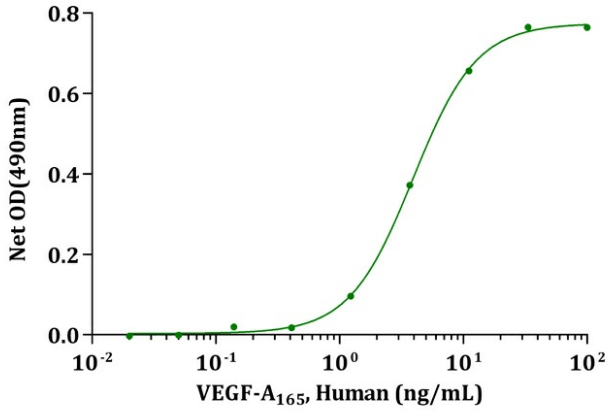
VEGF165, Human

Cat. No.: Z02689

Product Introduction

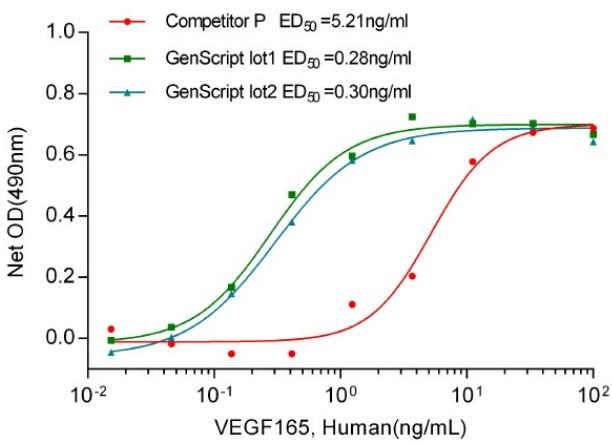
Species	Human
Protein Construction	**VEGF165 (Ala27-Arg191)** **Accession # P15692-4**
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	< 0.5 EU/μg of protein by gel clotting method
Biological Activity	ED_{50} of 1.0-5.0 ng/ml, measured by the dose-dependent stimulation of the proliferation of HUVEC cells, corresponding to a specific activity of 2.0×10^5-1.0×10^6 units/mg.
Expression System	P. pastoris
Apparent Molecular Weight	~ 38-40 kDa, on SDS-PAGE under non-reducing conditions ~ 18-20 kDa, on SDS-PAGE under reducing conditions Structure/form: Disulfide-linked homodimer
Formulation	Lyophilized after extensive dialysis against 25 mM HEPES, 150 mM NaCl, pH 7.0.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in ddH_2O up to 100 μg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at lower than -70°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. For long term storage it is recommended that a carrier protein (example 0.1% BSA) be added. Avoid repeated freeze-thaw cycles.

Examples

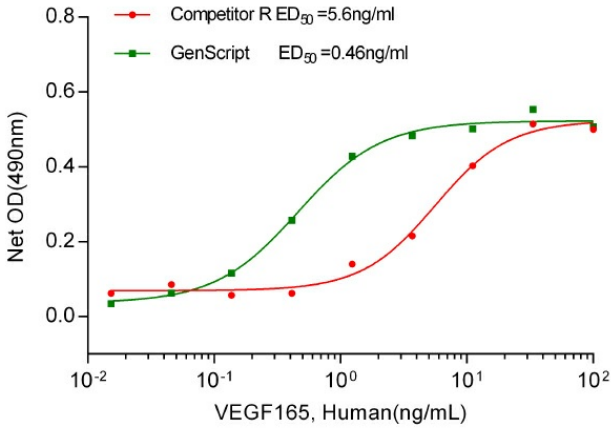


Biological Activity

VEGF-A165, Human (Cat. No. Z02689) stimulates cell proliferation of HUVEC cells. The ED_{50} for this effect is typically 1-5 ng/mL.



GenScript product showed better activity compared to competitor P



GenScript product showed better activity compared to competitor R

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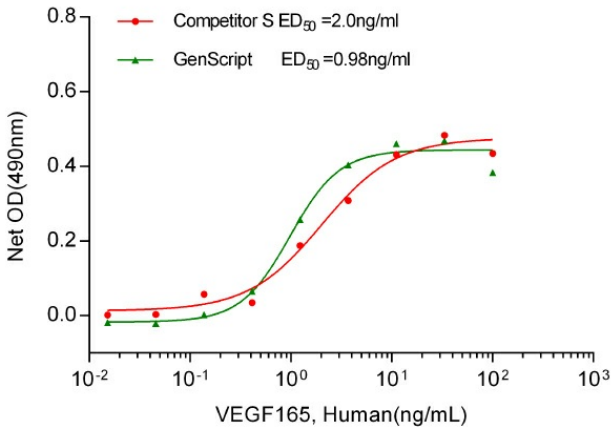
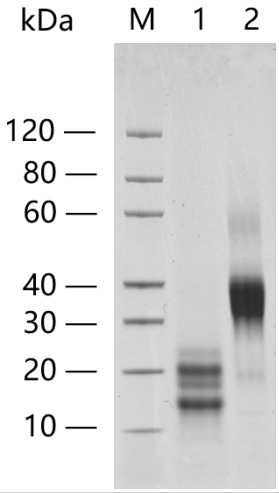


GenScript product showed better activity compared to competitor S



Recombinant VEGF165, Human (Z02689) was resolved by SDS-PAGE stained with coomassie blue, under reducing (R) and non-reducing (N) conditions, showing major bands at ~ 18-20 kDa and ~ 38-40 kDa, respectively. Multiple bands or smear in the gel are caused by glycosylation.

Lane 1: 2 µg of Z02689, reducing (R)
Lane 2: 2 µg of Z02689, non-reducing (N)
> 95% as analyzed by SDS-PAGE

Background

Target Background : Vascular Endothelial Growth Factor (VEGF) is a potent growth and angiogenic cytokine. It stimulates proliferation and survival of endothelial cells, and promotes angiogenesis and vascular permeability. Expressed in vascularized tissues, Vascular Endothelial Growth Factor (VEGF) plays a prominent role in normal and pathological angiogenesis. Substantial evidence implicates Vascular Endothelial Growth Factor (VEGF) in the induction of tumor metastasis and intra-ocular neovascular syndromes. Vascular Endothelial Growth Factor (VEGF) signals through the three receptors; fms-like tyrosine kinase (flt-1), KDR gene product (the murine homolog of KDR is the flk-1 gene product) and the flt4 gene product.

Synonyms : VEGF-165; Vascular Endothelial Growth Factor 165; VPF; Folliculostellate cell-derived growth factor; Glioma-derived endothelial cell mitogen; Vascular Permeability Factor

For laboratory research use only. Direct human use, including taking orally and injection and clinical use are forbidden.

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