Data Sheet (Cat.No.TMPJ-00864)

TargetMol

VEGF165 Protein, Human, Recombinant (Low Endotoxin)

General Information

Synonyms:	Vascular Endothelial Growth Factor Isoform 165;VEGF165
Protein Construction:	Ala27-Arg191
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P15692-4
Molecular Weight:	18-22 KDa (reducing condition)
AA Sequence:	Ala27-Arg191

QC Testing

Biological Activity:	1. Loaded Human VEGFR1-Fc on Protein A Biosensor, can bind Human VEGF165 with an affinity constant of 0.29 nM as determined in BLI assay. (Regularly tested) 2. Immobilized Human VEGF165 at 2μg/ml (100 μl/well) can bind Human VEGF165 antibody. The ED50 of Human VEGF165 antibody is 1.44 ng/ml. (Regularly tested)
Purity:	Greater than 95% as determined by reducing SDS-PAGE. Greater than 95% as determined by SEC-HPLC.
Endotoxin:	< 0.001 ng/μg (0.01 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Citrate, 8% Sucrose, 4% Mannitol, 0.05% Tween 80, pH4.0.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Human Vascular endothelial growth factor (VEGF), also known as VEGF-A and vascular permeability factor (VPF), belongs to the platelet-derived growth factor family of cysteine-knot growth factors. It is a potent activator in

vasculogenesis and angiogenesis both physiologically and pathologically. VEGF-A has 8 differently spliced isoforms, of which VEGF165 is the most abundant one. VEGF165 is a disulfide-linked homodimer consisting of two glycosylated 165 amino acid polypeptide chains. VEGF stimulates the cellular response through binding to tyrosine kinase receptors VEGFR1 and VEGFR2 on the cell surface. It is widely accepted that VEGFR2 mediate almost all of the known cellular responses to VEGF while the function of VEGFR1 is less defined and is thought to modulate the VEGFR2 signaling.

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