Mouse VEGF R1 / Flt-1 Protein, Mouse IgG2a Fc Tag, low endotoxin

Catalog # VE1-M5256

Synonym

FLT,VEGFR1,FLT1

Source

Mouse VEGF R1 Protein, Mouse IgG2a Fc Tag(VE1-M5256) is expressed from human 293 cells (HEK293). It contains AA Tyr 23 - Glu 759 (Accession # P35969-1).
Predicted N-terminus: Tyr 23

Molecular Characterization

VEGF R1(Tyr 23 - Glu 759) P35969-1	mFc(Glu 98 - Lys 330) P01863

This protein carries a mouse IgG2a Fc tag at the C-terminus.

The protein has a calculated MW of 109.8 kDa. The protein migrates as 140 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per μg by the LAL method / rFC method.

Purity

>85% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in 50 mM Tris, 100 mM Glycine, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

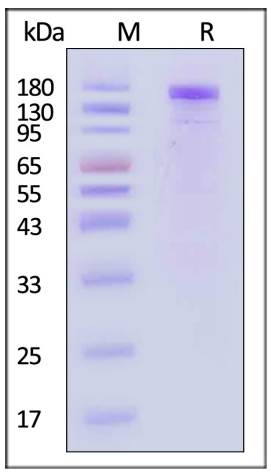
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

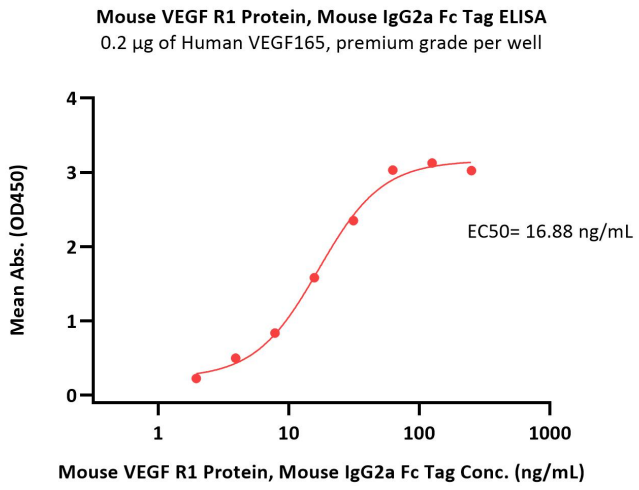
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

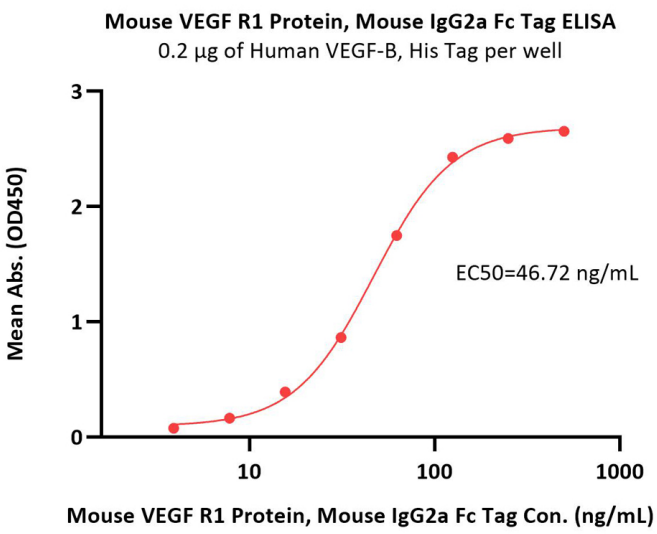


Mouse VEGF R1 Protein, Mouse IgG2a Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 85% (With Star Ribbon Pre-stained Protein Marker).

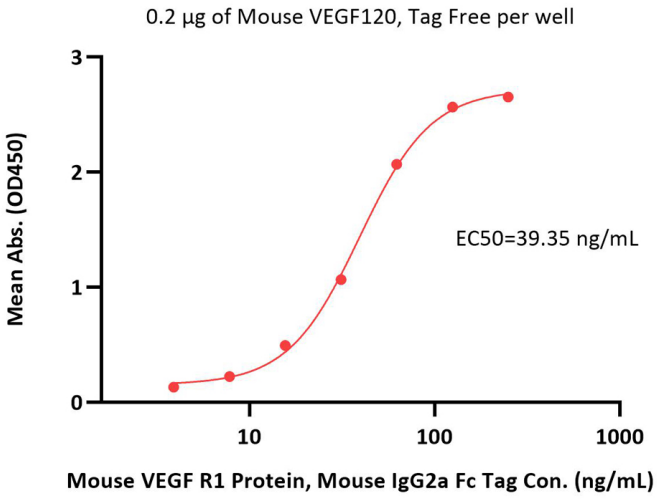
Bioactivity-ELISA



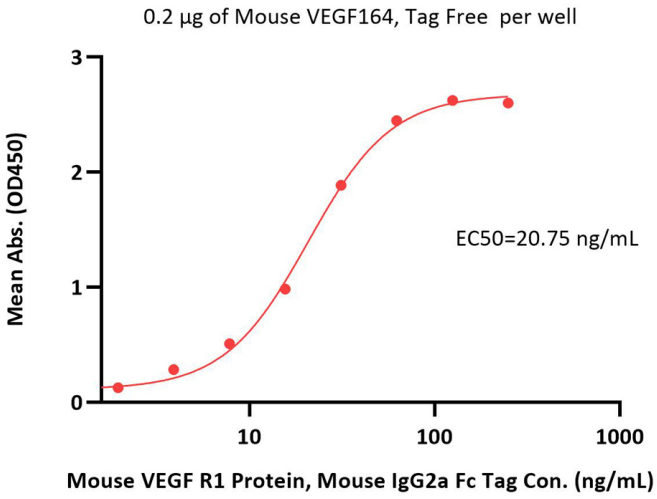
Immobilized Human VEGF165,Native (Cat. No. VE5-H4210) at 2 μg/mL (100 μL/well) can bind Mouse VEGF R1 Protein, Mouse IgG2a Fc Tag (Cat. No. VE1-M5256) with a linear range of 2-31 ng/mL (QC tested).



Immobilized Human VEGF-B, His Tag (Cat. No. VE6-H5225) at 2 μg/mL (100 μL/well) can bind Mouse VEGF R1 Protein, Mouse IgG2a Fc Tag (Cat. No. VE1-M5256) with a linear range of 8-63 ng/mL (Routinely tested).

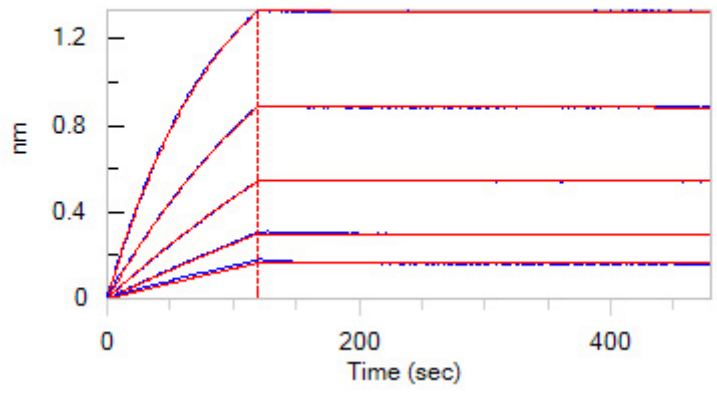


Immobilized Mouse VEGF120, Tag Free (Cat. No. VE0-M4211) at 2 μg/mL (100 μL/well) can bind Mouse VEGF R1 Protein, Mouse IgG2a Fc Tag (Cat. No. VE1-M5256) with a linear range of 4-63 ng/mL (Routinely tested).



Immobilized Mouse VEGF164, Tag Free (Cat. No. VE4-M4216) at 2 μg/mL (100 μL/well) can bind Mouse VEGF R1 Protein, Mouse IgG2a Fc Tag (Cat. No. VE1-M5256) with a linear range of 2-31 ng/mL (Routinely tested).

Bioactivity-BLI



Loaded Biotinylated Mouse VEGF164, His,Avitag (Cat. No. VE4-M82Q3) on SA Biosensor, can bind Mouse VEGF R1 Protein, Mouse IgG2a Fc Tag (Cat. No. VE1-M5256) with an affinity constant of 42.4 pM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

Vascular endothelial growth factor receptor 1 (VEGFR1) is also known as Fms-like tyrosine kinase 1 (FLT-1), Tyrosine-protein kinase receptor FLT, is a single-pass type I membrane protein and secreted protein which belongs to the protein kinase superfamily, Tyr protein kinase family and CSF-1/PDGF receptor subfamily. VEGFR1 is detected in normal lung, but also in placenta, liver, kidney, heart and brain tissues and specifically expressed in most of the vascular endothelial cells, and also expressed in peripheral blood monocytes. VEGFR1 acts as a cell-surface receptor for VEGFA, VEGFB and PGF, and plays an essential role in the development of embryonic vasculature, the regulation of angiogenesis, cell survival, cell migration, macrophage function, chemotaxis, and cancer cell invasion. VEGFR1 may play an essential role as a negative regulator of embryonic angiogenesis by inhibiting excessive proliferation of endothelial cells. VEGFR1 can promote endothelial cell proliferation, survival and angiogenesis in adulthood.