

Synonym

FLT, VEGFR1, FLT1

Source

Rhesus macaque VEGF R1, Mouse IgG2a Fc Tag, low endotoxin (VE1-R5257) is expressed from human 293 cells (HEK293). It contains AA Ser 27 - Asn 756 (Accession # [F7FAY2-1](#)).

Predicted N-terminus: Ser 27

Molecular Characterization

VEGF R1(Ser 27 - Asn 756) F7FAY2-1	mFc(Glu 98 - Lys 330) P01863
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This protein carries a mouse IgG2a Fc tag at the C-terminus.

The protein has a calculated MW of 109.1 kDa. The protein migrates as 130 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5. Normally trehalose is added as protectant before lyophilization.

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.

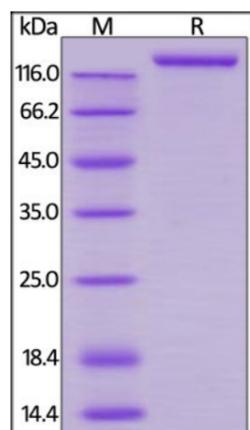
Storage

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

Please avoid repeated freeze-thaw cycles.

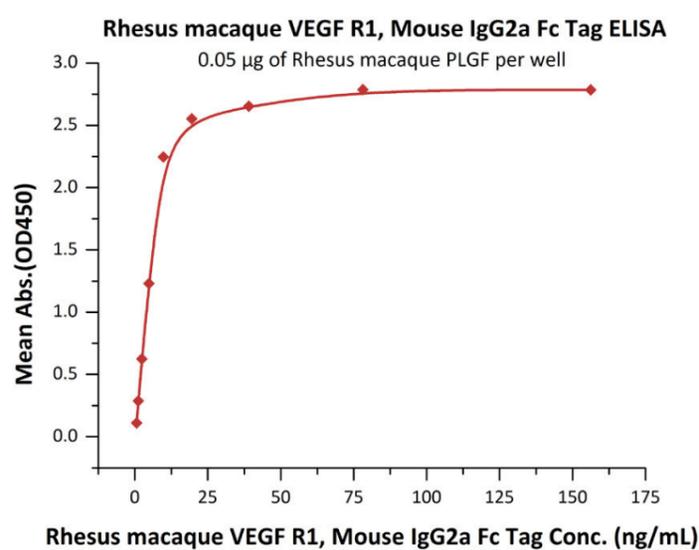
This product is stable after storage at:

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

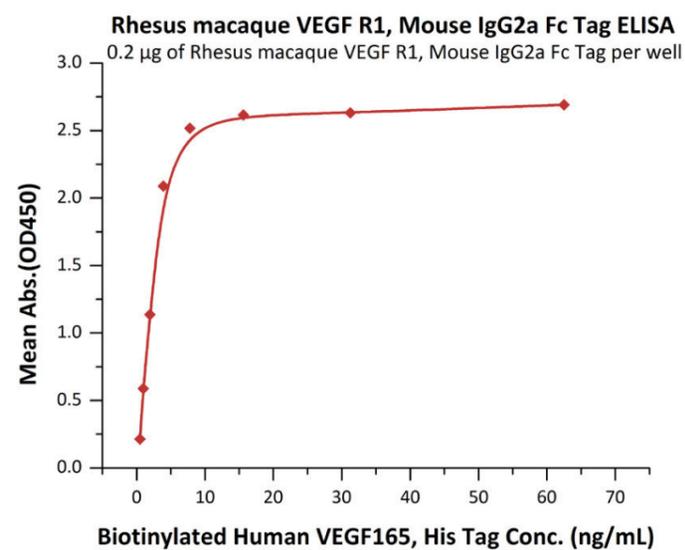
SDS-PAGE

Rhesus macaque VEGF R1, Mouse IgG2a Fc Tag, low endotoxin on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Immobilized Rhesus macaque PLGF (Cat. No. [PGF-R52H0](#)) at 0.5 µg/mL (100 µL/well) can bind Rhesus macaque VEGF R1, Mouse IgG2a Fc Tag, low endotoxin (Cat. No. [VE1-R5257](#)) with a linear range of 0.6-10 ng/mL (QC tested).



Immobilized Rhesus macaque VEGF R1, Mouse IgG2a Fc Tag, low endotoxin (Cat. No. [VE1-R5257](#)) at 2 µg/mL (100 µL/well) can bind Biotinylated Human VEGF165, His Tag (Cat. No. [VE5-H82Q0](#)) with a linear range of 0.5-3.9 ng/mL (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.

References

- (1) [Shibuya M., et al., 1990, Oncogene 5:519-524.](#)
- (2) [Kendall R.L., et al., 1993, Proc. Natl. Acad. Sci. U.S.A. 90:10705-10709.](#)
- (3) [Seetharam L., et al., 1995, Oncogene 10:135-147.](#)
- (4) [Barleon B., et al., 1996, Blood 87:3336-3343.](#)
- (5) [Grunewald F.S., et al., 2010, Biochim. Biophys. Acta 1804:567-580.](#)
- (6) [Iyer S., et al., 2010, J. Biol. Chem. 285:23779-23789.](#)

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.