Recombinant Human VEGFR2/KDR/Flk-1 Fc Chimera His-tag Alexa Fluor® 647

Catalog Number: AFR357

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived human VEGFR2/KDR/Flk-1 protein

Human VEGFR2 (Ala20-Glu764) Accession # AAC16450.1	IEGRMD	Human IgG_1 (Pro100-Lys330)	6-His tag

N-terminus C-terminus

N-terminal Sequence Analysis

Ala20

Structure / Form

Disulfide-linked homodimer
Labeled with Alexa Fluor® 647
Excitation Wavelength: 650 nm
Emission Wavelength: 668 nm

Predicted Molecular Mass

110 kDa (monomer)

SPECIFICATIONS

SDS-PAGE

150-170 kDa, under reducing conditions.

Activity

Measured by flow cytometry for its ability to bind Human VEGFR2/KDR/Flk-1 Antibody conjugated fluorescent beads at 2.50-10.0 µg/mL (100 µL/well).
Please Note: Optimal dilutions should be determined by each laboratory for each application.

Endotoxin Level

<1.0 EU per 1 µg of the protein by the LAL method.

Purity

>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation

Supplied as a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Shipping

The product is shipped with dry ice or equivalent. Upon receipt, store it immediately at the temperature recommended below.

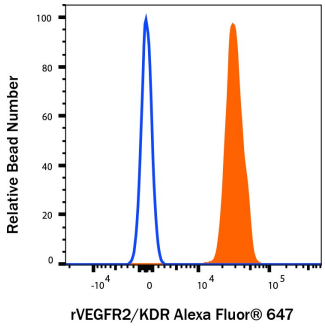
Stability & Storage

Protect from light. Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 6 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after opening.
- 3 months, -20 to -70 °C under sterile conditions after opening.

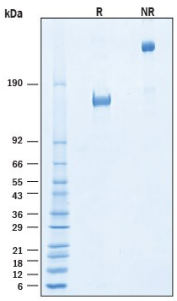
DATA

Flow Cytometry



Detection of Human VEGFR2/KDR/Flk-1 Antibody with Recombinant Human VEGFR2/KDR/Flk-1 Fc Chimera His-tag Alexa Fluor® 647 Protein by Flow Cytometry. Fluorescent beads conjugated to Human VEGFR2/KDR/Flk-1 Antibody were stained with (A) Recombinant Human VEGFR2/KDR/Flk-1 Fc Chimera His-tag Alexa Fluor® 647 (Catalog # AFR357, filled histogram) or (B) unstained (open histogram).

SDS-PAGE



Recombinant Human VEGFR2/KDR Fc His Alexa Fluor® 647 Protein SDS-PAGE. 2 µg/lane of Recombinant Human VEGFR2/KDR Fc His Alexa Fluor® 647 Protein (Catalog # AFR357) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 150-170 kDa and 300-340 kDa, respectively.

BACKGROUND

VEGFR2 (KDR/Flk-1), VEGFR1 (Flt-1) and VEGFR3 (Flt-4) belong to the class III subfamily of receptor tyrosine kinases (RTKs). All three receptors contain seven immunoglobulin-like repeats in their extracellular domains and kinase insert domains in their intracellular regions. The expression of VEGFR1, 2, and 3 is almost exclusively restricted to the endothelial cells. These receptors are likely to play essential roles in vasculogenesis and angiogenesis. VEGFR2 cDNA encodes a 1356 amino acid (aa) residue precursor protein with a 19 aa residue signal peptide. Mature VEGFR2 is composed of a 745 aa residue extracellular domain, a 25 aa residue transmembrane domain and a 567 aa residue cytoplasmic domain. In contrast to VEGFR1 which binds both P*l*GF and VEGF with high affinity, VEGFR2 binds VEGF but not P*l*GF with high affinity. The recombinant soluble VEGFR2/Fc chimera binds VEGF with high affinity and is a potent VEGF antagonist.

References:

1. Ferra, N. and R. Davis-Smyth (1997) Endocrine Reviews **18**:4.

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