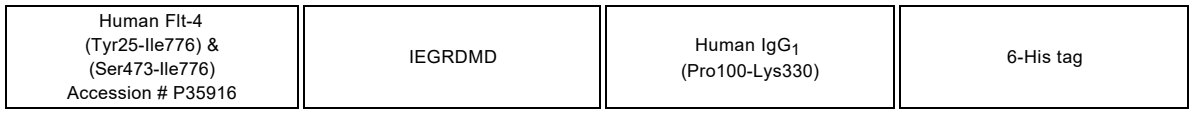
Recombinant Human VEGFR3/Flt-4 Fc Chimera

Catalog Number: 349-F4

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived human VEGFR3/Flt-4 protein



N-terminal Sequence Analysis	Tyr25 & Ser473
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	112 kDa (monomer)

SPECIFICATIONS

SDS-PAGE	145-150 kDa, 90-95 kDa and 75-80 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. Immobilized Recombinant Human VEGFR3/Flt-4 Fc Chimera at 5 µg/mL (100 µL/well) binds Recombinant Human VEGF-D (Catalog # 622-VD) with an apparent K_d <15 nM.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 200 µg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

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.

VEGFR3 cDNA encodes a 1298 amino acid (aa) residue precursor protein with a 24 aa residue signal peptide. Mature VEGFR3 is composed of a 751 aa residue extracellular domain, a 22 aa residue transmembrane domain and a 482 aa residue cytoplasmic domain. Both VEGF-C and VEGF-D have been shown to bind and activate VEGFR3 (Flt-4). VEGFR3 is widely expressed in the early embryo but becomes restricted to lymphatic endothelia at later stages of development. It is likely that VEGFR3 may be important for lymph angiogenesis.

References:

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

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