

DESCRIPTION

Source	Spodoptera frugiperda, Sf 21 (baculovirus)-derived mouse VEGFR3/Flt-4 protein				
	Met	Mouse VEGFR3 (Tyr25-Asp770) Accession # P35917	IEGRDID	Human IgG ₁ (Pro100-Lys330)	6-His tag
	N-terminus		C-terminus		
N-terminal Sequence Analysis	Met				
Structure / Form	Disulfide-linked homodimer				
Predicted Molecular Mass	112 kDa (monomer)				

SPECIFICATIONS

SDS-PAGE	123 kDa with two additional minor bands at 73 kDa and 60 kDa, reducing conditions
Activity	Measured by its binding ability in a functional ELISA. Immobilized Recombinant Mouse VEGFR3/Flt-4 Fc Chimera (Catalog # 743-R3) at 5 µg/mL (100 µL/well) can bind Recombinant Mouse VEGF-D (Catalog # 469-VD) with an apparent K _d <50 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 100 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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> 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

VEGFR3 (Flt-4), together with VEGFR1 (Flt-1) and VEGFR2 (KDR/Flk-1), 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 these receptors is almost exclusively restricted to the endothelial cells. These receptors are likely to play essential roles in vasculogenesis and angiogenesis.

In adults, VEGFR3 expression is restricted to the endothelial cells of the lymphatic vessels. Mouse VEGFR3 cDNA encodes a 1363 amino acid (aa) residue precursor protein with a 24 aa residue signal peptide. Mature VEGFR3 has a 751 aa residue extracellular domain, a 22 aa residue hydrophobic transmembrane domain and a 565 aa residue cytoplasmic domain. The polypeptide sequences of murine Flt-4 is 88% identical to the human homologue. VEGFR3 has been reported to serve as the receptors for VEGF-C and VEGF-D.

References:

1. Finnerty, H. *et al.* (1993) *Oncogene* **8**:2293.
2. Joukov, V. *et al.* (1996) *EMBO J.* **15**:290.
3. Achen, M. *et al.* (1998) *Proc. Natl. Acad. Sci. USA.* **95**:548.