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Human soluble VEGFR-1 (D7) recombinant protein

ORDERING INFORMATION

Catalog No: rAP-0280

Size: 2 µg; 10µg

Storage: <- 20° C

Synonyms: FLT-1, FLT1, Tyrosine-protein kinase receptor FLT, Flt-1, Tyrosine-protein kinase FRT, Fms-like tyrosine kinase 1, VEGFR-1.

Introduction:

Endothelial cells express three different vascular endothelial growth factor (VEGF) receptors, belonging to the family of receptor tyrosine kinases (RTKs). They are named VEGFR-1 (Flt-1), VEGFR-2 (KDR/Fik-1), and VEGFR-3 (Flt-4). Their expression is almost exclusively restricted to endothelial cells, but VEGFR-1 can also be found on monocytes. All VEGF-receptors have seven immunoglobulin-like extracellular domains, a single transmembrane region and an intracellular split tyrosine kinase domain. VEGFR-2 has a lower affinity for VEGF than the Flt-1 receptor, but a higher signalling activity. Mitogenic activity in endothelial cells is mainly mediated by VEGFR-2 leading to their proliferation. Differential splicing of the *flt-1* gene leads to the formation of a secreted, soluble variant of VEGFR-1 (sVEGFR-1). No naturally occurring, secreted forms of VEGFR-2 have so far been reported. The binding of VEGF₁₆₅ to VEGFR-2 is dependent on heparin.

Description: Soluble VEGFR-1 Human Recombinant fused with the Fc part of human IgG₁ produced in baculovirus is disulfide-linked homodimeric, glycosylated, polypeptide containing 751 amino acids and having a molecular mass of 130 kDa. The soluble receptor protein contains only the first 7 extracellular domains, which contain all the information necessary for binding of VEGF. The VEGFR1 fc/Chimera is purified by proprietary chromatographic techniques.

Source: *Insect Cells*

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

VEGFR-1 D1-7 was lyophilized from a concentrated (1 mg/ml) sterile solution containing no additives.

Solubility: It is recommended to reconstitute the lyophilized sVEGFR-1 Fc/Chimera in sterile water not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability: Lyophilized FLT-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution FLT1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Please prevent freeze-thaw cycles.**

Purity:

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

Biological Activity:

The activity of sVEGFR-1/Fc was determined by its ability to inhibit the VEGF-dependent proliferation of human umbilical vein endothelial cells. The ED₅₀ for this effect is typically 10-30 ng/ml

Usage: Angio-Proteomie's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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