Recombinant Human Vascular Endothelial Growth Factor Receptor-1 D3, His

Cat. No. VEGFR1-77H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human VEGFR-1 D1-3 produced in E.Coli is monomeric, glycosylated, polypeptide containing 298 amino acids fragment (31-328) and having a molecular mass of 43 kDa. The receptor protein contains only the first 3 extracellular domains, which contain all the information necessary for binding of VEGF. The VEGFR1 is purified by proprietary chromatographic techniques.
Species	Human
Source	Insect Cells
Description	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/Flk-1), VEGFR-3 (Flt-4). Their expression is almost exclusively restricted to endothelial cells, but VEGFR-1 can also be found on monocytes, dendritic cells and on trophoblast cells. The flt-1 gene was first described in 1990. The receptor contains seven immunoglobulin-like extracellular domains, a single transmembrane region and an intracellular splited tyrosine kinase domain. Compared to VEGFR-2 the Flt-1 receptor has a higher affinity for VEGF but a weaker signaling activity. VEGFR-1 thus leads not to proliferation of endothelial cells, but mediates signals for differentiation. Interestingly a naturally occuring soluble variant of VEGFR-1 (sVEGFR-1) was found in HUVE supernatants in 1996, which is generated by alternative splicing of the flt-1 mRNA. The biological functions of sVEGFR-1 still are not clear, but it seems to be an endogenous regulator of angiogenesis, binding

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	VEGF with the same affinity as the full-length receptor.
Physical Appearance	Sterile Filtered clear solution.
Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE
Formulation	VEGFR1-His is supplied in 1x PBS and 50% glycerol.
Storage	Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time.Please avoid freeze thaw cycles.

GENE INFORMATION

Synonyms	FLT-1; FLT1; Tyrosine-protein kinase receptor FLT; Flt-1; Tyrosine-protein kinase FRT; Fms-like tyrosine kinase 1; VEGFR-1; EC 2.7.10.1; VEGFR1; Tyrosine-protein kinase receptor FLT; Vascular permeability factor receptor; fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor); soluble VEGF receptor 1-14; soluble VEGFR1 variant 2; soluble VEGFR1 variant 21; vascular endothelial growth factor/vascular permeability factor receptor; vascular endothelial growth factor receptor 1.

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