

Recombinant Human FLT1/VEGFR2, Fc-tagged therapeutic protein

Cat. No. VEGFR1&VEGFR2-P019H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

A protein comprised of segments of the extracellular domains of human vascular endothelial growth factor receptors 1 (VEGFR1) and 2 (VEGFR2) fused to the constant region (Fc) of human IgG1 with potential antiangiogenic activity. The therapeutic protein, functioning as a soluble decoy receptor, binds to pro-angiogenic vascular endothelial growth factors (VEGFs), thereby preventing VEGFs from binding to their cell receptors. Disruption of the binding of VEGFs to their cell receptors may result in the inhibition of tumor angiogenesis, metastasis, and ultimately tumor regression. It is a dimeric glycoprotein with a protein molecular weight of 97 kilodaltons (kDa) and contains glycosylation, constituting an additional 15% of the total molecular mass, resulting in a total molecular weight of 115 kDa. The protein is produced in recombinant Chinese hamster ovary (CHO) cells.

Species Human

Source CHO

Description

This gene encodes a member of the vascular endothelial growth factor receptor (VEGFR) family. VEGFR family members are receptor tyrosine kinases (RTKs) which contain an extracellular ligand-binding region with seven immunoglobulin (Ig)-like domains, a transmembrane segment, and a tyrosine kinase (TK) domain within the cytoplasmic domain. This protein binds to VEGFR-A, VEGFR-B and placental growth factor and plays an important role in angiogenesis and vasculogenesis. Expression of this receptor is found in vascular endothelial cells, placental trophoblast cells and

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peripheral blood monocytes. Multiple transcript variants encoding different isoforms have been found for this gene. Isoforms include a full-length transmembrane receptor isoform and shortened, soluble isoforms. The soluble isoforms are associated with the onset of pre-eclampsia.

Endotoxin < 0.1 EU per µg of the protein

Purity >95%

GENE INFORMATION

Gene Name FLT1 fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor) [Homo sapiens]

Official Symbol FLT1

Synonyms FLT1; fms-related tyrosine kinase 1 (vascular endothelial growth factor/vascular permeability factor receptor); FLT; vascular endothelial growth factor receptor 1; VEGFR1; FLT-1; VEGFR-1; fms-like tyrosine kinase 1; tyrosine-protein kinase FRT; tyrosine-protein kinase receptor FLT; vascular permeability factor receptor;

Gene ID 2321

mRNA Refseq NM_001159920

Protein Refseq NP_001153392

MIM 165070

UniProt ID P17948

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Chromosome Location	13q12
Pathway	Cytokine-cytokine receptor interaction, organism-specific biosystem; Cytokine-cytokine receptor interaction, conserved biosystem; Endocytosis, organism-specific biosystem; Endocytosis, conserved biosystem; Focal Adhesion, organism-specific biosystem; Focal adhesion, organism-specific biosystem; Focal adhesion, conserved biosystem;
Function	ATP binding; growth factor binding; nucleotide binding; protein binding; receptor activity; transmembrane receptor protein tyrosine kinase activity; vascular endothelial growth factor-activated receptor activity; vascular endothelial growth factor-activated receptor activity;

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