

# Human VEGFR1 Protein; His Tag

## Product Information

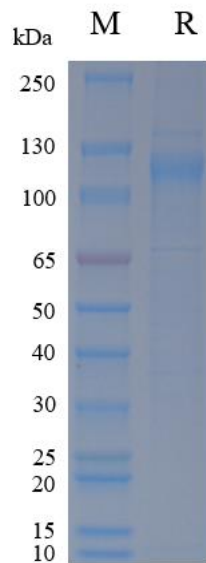
<b>Product Name</b>	Human VEGFR1 Protein; His Tag
<b>Storage temp</b>	Store at $\leq -70^{\circ}\text{C}$ , stable for 6 months after receipt. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.
<b>Catalog# / Size</b>	<b>GM-88076RP-100 / 100 <math>\mu\text{g}</math></b> <b>GM-88076RP-1000 / 1 mg</b>

## Protein Information

<b>Alternative Names</b>	FLT, VEGFR1, FLT1
<b>Source</b>	Human VEGFR1 Protein; His Tag (GM-88076RP) is expressed from human 293 cells (HEK-293). It contains AA Ser 27 - Asn 756 (Accession # P17948-1). This protein carries a His tag at the C-terminus.
<b>Purity</b>	> 90% as determined by SDS-PAGE
<b>Endotoxin</b>	< 1 EU/ $\mu\text{g}$ , determined by LAL gel clotting assay
<b>Predicted Mol Mass</b>	83.0 KDa
<b>Formulation</b>	Supplied as a 0.2 $\mu\text{m}$ filtered solution of PBS, pH7.2-7.4.
<b>Description</b>	<p>VEGFR1 (FLT1) is a transmembrane receptor tyrosine kinase in the VEGF/PDGF receptor family, expressed on the surface of vascular endothelial cells. Its structure features an extracellular immunoglobulin-like domain that binds VEGF, a transmembrane region, and an intracellular kinase domain that becomes autophosphorylated to trigger downstream signaling. Multiple isoforms arise from alternative splicing, with somewhat different expression patterns and functions. Its role is important yet complex in angiogenesis, inflammation, and the tumor microenvironment.</p> <p>VEGFR1's main ligands are VEGF-A, VEGF-B, and PlGF; upon binding, it activates signaling pathways such as PI3K/AKT, MAPK/ERK, and PLC<math>\gamma</math> to regulate endothelial cell proliferation, migration, and survival. Its kinase activity is weaker than VEGFR2, and it often acts as a regulator by competitively binding VEGF, forming non-catalytic complexes, or inducing receptor endocytosis/degradation to fine-tune signaling and prevent excessive angiogenesis.</p>

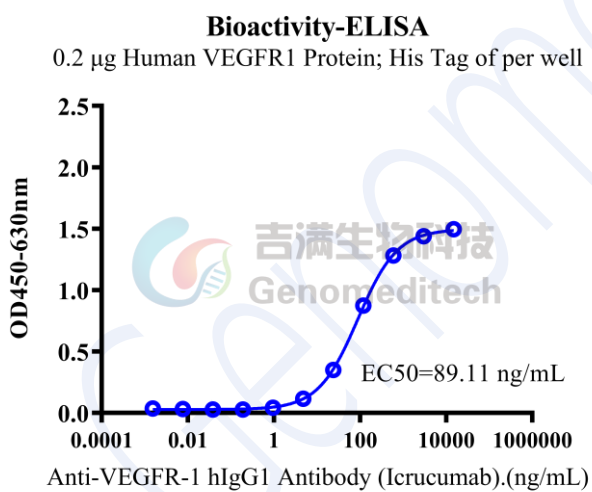
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## SDS-PAGE



On SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 90%.

## Bioactivity-ELISA



Human VEGFR1 Protein; His Tag (Catalog # GM-88076RP) was immobilized at 2 µg/ml (100 µL/well). Increasing concentrations of Anti-VEGFR-1 hIgG1 Antibody (Icrucumab) (Catalog # GM-88109AB) were added.