**DESCRIPTION**

**Source**
Mouse myeloma cell line, NS0-derived human VEGFR2/KDR/Flk-1 protein

<table>
<thead>
<tr>
<th>Human VEGFR2</th>
<th>IEGRMD</th>
<th>Human IgG1</th>
<th>6-His tag</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Ala20-Glu764)</td>
<td></td>
<td>(Pro100-Lys330)</td>
<td></td>
</tr>
</tbody>
</table>

**N-terminal Sequence Analysis**
Ala20

**Structure / Form**
Disulfide-linked homodimer

**Predicted Molecular Mass**
110 kDa (monomer)

**SPECIFICATIONS**

**SDS-PAGE**
160-170 kDa, reducing conditions

**Activity**
Measured by its ability to inhibit the VEGF-dependent proliferation of HUVEC human umbilical vein endothelial cells. The ED50 for this effect is 10-40 ng/mL in the presence of 10 ng/mL recombinant human VEGF165.

**Endotoxin Level**
<0.10 EU per 1 μg of the protein by the LAL method.

**Purity**
>90%, 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 with BSA as a carrier protein. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

**Reconstitution**
Reconstitute at 100 μg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.

**Shipping**
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage**
- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 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**

VEGFR2 (KDR/Flk-1), VEGFR1 (Flt-1) and VEGFR3 (Flt-4) 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 VEGFR1, 2, and 3 is almost exclusively restricted to the endothelial cells. These receptors are likely to play essential roles in vasculogenesis and angiogenesis.

VEGFR2 cDNA encodes a 1356 amino acid (aa) residue precursor protein with a 19 aa residue signal peptide. Mature VEGFR2 is composed of a 745 aa residue extracellular domain, a 25 aa residue transmembrane domain and a 567 aa residue cytoplasmic domain. In contrast to VEGFR1 which binds both PI GF and VEGF with high affinity, VEGFR2 binds VEGF but not PI GF with high affinity. The recombinant soluble VEGFR2/Fc chimera binds VEGF with high affinity and is a potent VEGF antagonist.

**References:**