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Recombinant Human sKDR (native)

Description: The naturally occurring form of human soluble Endothelial Growth Factor Receptor-2 (sKDR) was cloned from a full length KDR cDNA by standard molecular methods. The soluble receptor protein consists of the first 6 extracellular domains and contains the unique C-terminal end of native human soluble VEGFR-2/KDR (*CGRETILDHSAEAVGMP*) [Albuquerque et al., Nature Medicine 2009] generated by alternative splicing. The recombinant human sKDR is produced in a monomeric form in insect cells. The receptor monomers have a mass of approximately 105 kDa.

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), and VEGFR-3 (Flt-4). For Flt-1 as well as KDR naturally occurring soluble forms are described. The expression of the receptors 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 signaling activity. Mitogenic activity in endothelial cells is mainly mediated by VEGFR-2 leading to their proliferation. The binding of VEGF₁₆₅ to VEGFR-2 is dependent on heparin.

Source:	Insect cells
Molecular Weight:	~105 kDa
Subunit:	glycosylated monomer
Purity:	> 95% by SDS-PAGE and visualised by silver stain
Endotoxin level:	< 0.1 ng per ug of sKDR
Stabilizer:	none
Buffer:	25mM MES, 150mM NaCl, pH 5.5
Formulation:	lyophilized

Biological Activity: Measured by its ability to bind to immobilized recombinant human VEGF₁₆₅ in a functional ELISA.

Reconstitution: The lyophilized human sKDR is soluble in water and most aqueous buffers. The lyophilized powder should be reconstituted in water or PBS to a concentration of not lower than 100 µg/ml.

Stability: The material is stable for greater than six months at -20° C to -70° C. After the first thawing it is recommended to aliquote the material, because repeated freeze-thaw cycles will decrease the activity. Store at 4°C not longer than 2 days. **Avoid repeated freeze-thaw cycles.**

Usage: Human sKDR is offered for research use. Not for drug use. **Not for human use.**

Catalogue number: S01-004

Size: 20 µg