

FITC-Labeled VEGFR-2 Protein, Human (HEK293, His)

Cat. No.:	HY-P701264
Synonyms:	KDR; CD309; FLK1; VEGFR; VEGFR2
Species:	Human
Source:	HEK293
Accession:	AAI31823.1 (A20-E764)
Gene ID:	3791
Molecular Weight:	110-120 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from 0.22 μ m filtered solution of PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O.
Storage & Stability	Stored at -20°C for 1 year, protect from light. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	<p>VEGF receptors (VEGFRs) are receptors for vascular endothelial growth factor (VEGF), and there are three main subtypes, VEGFR-1, VEGFR-2, and VEGFR-3. VEGFR-2 acts as a tyrosine-protein kinase of the cell surface receptor for VEGFA, VEGFC and VEGFD, and plays an important role in angiogenesis, vascular development, vascular permeability and embryonic hematopoiesis. It can promote the proliferation, survival, migration and differentiation of endothelial cells. Promote actin cytoskeleton recombination. VEGFR-2 regulates VEGFR-1 (FLT1) and VEGFR-3 (FLT40) signaling by forming heterodimers. VEGFR-2 mediates the activation of ,MAPK1/ERK2, MAPK3/ERK1 and MAP kinase signaling pathways, as well as the AKT1 signaling pathway. It mediates phosphorylation of the phosphatidylinositol 3-kinase regulatory subunit PIK3R1, recombination of actin cytoskeleton and activation of PTK2/FAK1. Vegfa-mediated induction of NOS2 and NOS3 is required, resulting in endothelial cell production of the signaling molecule nitric oxide (NO). Phosphorylated PLCG1. Promotes phosphorylation of FYN, NCK1, NOS3, PIK3R1, PTK2/FAK1, and SRC. Overexpression of VEGFR-2 is associated with tumorigenesis^{[1][2][3][4][5][6]}.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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