

BACKGROUND

The Vascular Endothelial Growth Factor Receptor (VEGFR) family has three members: VEGFR-1 (also known as flt-1), VEGFR-2 (KDR/flk-1), and VEGFR-3 (FLT4). In VEGFR-3, the fifth Ig homology domain of the extracellular portion is proteolytically cleaved and the resulting polypeptides remain linked by two disulfide bonds.¹ The ligands binding to VEGFRs belong to the VEGF family of growth factors, which has five cellular members: VEGF, placenta growth factor (PlGF), VEGF-B, VEGF-C, VEGF-D, and the recently cloned viral VEGF homologue VEGF-E.² VEGFR-3 is required for cardiovascular development during embryogenesis. In adults, this receptor is expressed in lymphatic endothelial cells. VEGF-C and VEGF-D are VEGFR3 ligands. The binding of VEGF ligands to VEGFRs activates VEGFR3 signaling, which regulates cardiovascular development, angiogenesis, and lymphangiogenesis.³

References:

- Otrock, Z.K. et al. : Blood Cells Mol Dis. 38:258, 2007
- Taipale, J. et al.: Curr Top Microbiol Immunol. 237:85, 1999
- Su, J.L. et al.: Br J Cancer. 96:541, 2007

TECHNICAL INFORMATION

Source:

Anti-VEGFR3 is a rabbit polyclonal antibody raised against *E. coli*-expressed cytoplasmic domain of human VEGF receptor-3.

Specificity and Sensitivity:

Anti-VEGFR3 specifically detects over-expressed levels of VEGF receptor-3. This antibody does not cross-react with other VEGFR-family members.

Storage Buffer: 0.1 M PBS (pH 7.2), 0.1% glycine, 0.1% sodium azide, 0.1% BSA, 50% glycerol.

Storage:

Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	n/d
IHC	n/d
ICC	n/d
FACS	n/d

**Optimal dilutions must be determined by end user.*

QUALITY CONTROL DATA

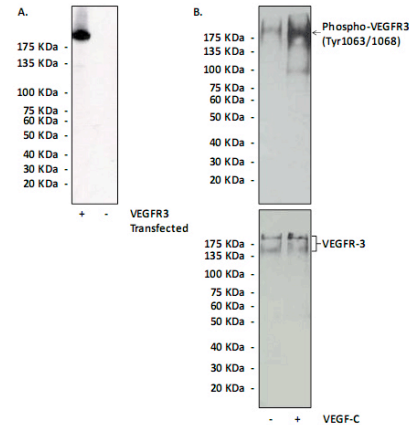


Figure A: Specific detection of VEGF receptor-3 proteins from 293 cells transfected with a human VEGF receptor-3 expression vector by Western Blot analysis using VEGF Receptor-3 Rabbit Polyclonal Antibody. **Figure B:** Human Dermal Lng Endothelial Cells (HDLMVEC) (Cat# 100L-05a) were stimulated with VEGF-C (50ng/ml for 5 min). VEGF-C stimulated HDLMVEC Lysate was subjected to Western Blot analysis using Phospho-VEGFR3 (Tyr1063/1068) Antibody (Cat# CB5793) (Top) and VEGFR3 Antibody (Cat# CB5792) (Bottom). The results showed that HDLMVEC expressed VEGFR3, and that VEGFR3 can be activated by VEGF-C.

