

## BACKGROUND

VEGFR1 (Flt-1) and VEGFR2 (KDR/Flk-1) play an important role in regulating physiological as well as pathological angiogenesis. VEGFR2 has strong tyrosine kinase activity, and transduces the major signals for angiogenesis. However, unlike other representative tyrosine kinase receptors which use the Ras pathway, VEGFR2 mostly uses the Phospholipase-C $\gamma$ -Protein kinase-C pathway to activate MAP-kinase and DNA synthesis. VEGFR2 is a direct signal transducer for pathological angiogenesis, including cancer and diabetic retinopathy. Thus VEGFR2 itself and the signaling pathway appear to be critical targets for the suppression of these diseases.<sup>1,2</sup> Upon binding to its ligand, most commonly VEGF-A and VEGF-E, VEGFR2 undergoes dimerization and becomes activated. Autophosphorylation of tyrosine 1054 and tyrosine 1059 in its kinase catalytic domain is required for tyrosine kinase activity.<sup>3</sup>

### References:

1. Olsson, A. K. et al: Nat Rev Mol Cell Biol 7:359-71, 2006.
2. Shibuya, M.: J Biochem Mol Biol. 39:469-78, 2006.
3. Paz, K. & Zhu, Z.: Front Biosci. 10:1415-39, 2005.

## TECHNICAL INFORMATION

### Source:

Affinity purified Anti-VEGFR2 is a rabbit polyclonal antibody raised against 25 amino acid residues near the C-terminus of human VEGFR2.

### Specificity & Specificity:

This antibody detects endogenous levels of VEGFR2.

**Storage Buffer:** PBS and 30% glycerol

### Storage:

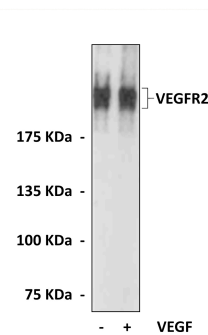
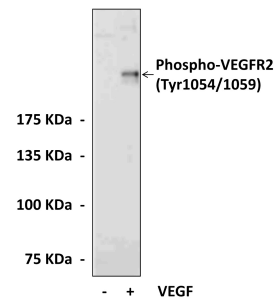
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

## APPLICATIONS

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

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

## QUALITY CONTROL DATA



HUVEC (Cat# 200-05n) were starved overnight and then stimulated with VEGF-E (100ng/ml for 2 min). The cell lysates were subjected to Western Blot analysis using phospho-VEGFR2 (Tyr1054/1059) specific antibody (Cat# CC1027) (**Top**) and VEGFR2 antibody (Cat# CC1020) (**Bottom**).

