

## BACKGROUND

VEGFR1 (Fit-1) and VEGFR2 (KDR/FIk-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 including VEGF-A and VEGF-E, VEGFR2 undergoes dimerization and becomes activated. Autophosphorylation of tyrosine 1175 is required for binding of PLC $\gamma$ <sup>3</sup> and Shb<sup>4</sup> (Src homology 2 domain containing adaptor protein B).

### 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. Takahashi, T. et al.: EMBO J. 20:2768-78, 2001.
4. Holmqvist, K et al.: J. Biol. Chem. 279:22267-75, 2004.

## TECHNICAL INFORMATION

### Source:

Affinity purified Anti-phospho-VEGFR2 (Tyr1175) is a rabbit polyclonal antibody raised against the 15 amino acid residues surrounding and including human VEGFR2 phospho-Tyr1175.

### Specificity & Specificity:

This antibody detects endogenous levels of phosphorylated VEGFR2.

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

### Storage:

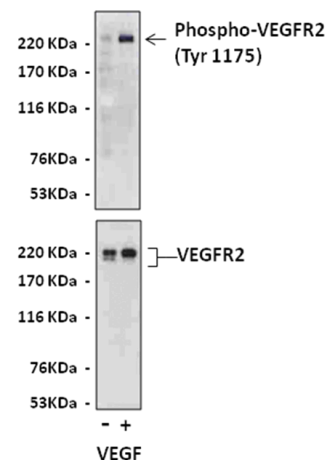
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

## 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 (Tyr1175) specific antibody (Cat# CC1028) (**Top**) and VEGFR2 antibody (Cat# CC1020) (**Bottom**).

