

Store at -20C  
#8696

# Angiogenesis Antibody Sampler Kit



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1 Kit (7 x 20 microliters)

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Product Includes	Product #	Quantity	Mol. Wt	Isotype/Source
Phospho-VEGF Receptor 2 (Tyr1175) (19A10) Rabbit mAb	2478	20 µl	230 kDa	Rabbit IgG
Phospho-Akt (Ser473) (D9E) XP <sup>®</sup> Rabbit mAb	4060	20 µl	60 kDa	Rabbit IgG
Phospho-Src Family (Tyr416) (D49G4) Rabbit mAb	6943	20 µl	60 kDa	Rabbit IgG
Phospho-FAK (Tyr397) (D20B1) Rabbit mAb	8556	20 µl	125 kDa	Rabbit IgG
Phospho-p38 MAPK (Thr180/Tyr182) (D3F9) XP <sup>®</sup> Rabbit mAb	4511	20 µl	43 kDa	Rabbit IgG
Phospho-PLCγ1 (Ser1248) (D25A9) Rabbit mAb	8713	20 µl	150 kDa	Rabbit IgG
Phospho-p44/42 MAPK (Erk1/2) (Thr202/Tyr204) (D13.14.4E) XP <sup>®</sup> Rabbit mAb	4370	20 µl	44, 42 kDa	Rabbit IgG
Anti-rabbit IgG, HRP-linked Antibody	7074	100 µl		Goat

Please visit [cellsignal.com](http://cellsignal.com) for individual component applications, species cross-reactivity, dilutions, protocols, and additional product information.

## Description

The Angiogenesis Antibody Sampler Kit provides an economical means to investigate the angiogenic pathway downstream of VEGFR2. The kit contains enough primary antibody to perform two western blots per primary antibody.

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

## Background

Vascular endothelial growth factor receptor 2 (VEGFR2, KDR, Flk-1) is a major receptor for VEGF-induced signaling in endothelial cells. Upon ligand binding, VEGFR2 undergoes autophosphorylation and becomes activated (1). Signaling from VEGFR2 is necessary for angiogenesis *in vivo* (2-4). Activation of the receptor leads to rapid recruitment of adaptor proteins, including Shc, GRB2, PI3 kinase, NCK, and the protein tyrosine phosphatases SHP-1 and SHP-2 (5). Phosphorylation of VEGFR2 at Tyr1212 provides a docking site for GRB2 binding and phosphorylation at Tyr1175 binds the p85 subunit of PI3 kinase and PLCγ (1,5,6). Activation of VEGFR2 during angiogenesis leads to signaling through multiple downstream kinase pathways including Akt, Src, FAK, p38, and Erk1/2 (2,7).

## Background References

1. Meyer, M. et al. (1999) *EMBO J* 18, 363-74.
2. Karkkainen, M.J. and Petrova, T.V. (2000) *Oncogene* 19, 5598-605.
3. Rahimi, N. et al. (2000) *J Biol Chem* 275, 16986-92.
4. Claesson-Welsh, L. (2003) *Biochem Soc Trans* 31, 20-4.
5. Holmqvist, K. et al. (2004) *J Biol Chem* 279, 22267-75.
6. Takahashi, T. et al. (2001) *EMBO J* 20, 2768-78.
7. Le Boeuf, F. et al. (2004) *J Biol Chem* 279, 39175-85.

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