

## Anti-VEGFR2/KDR Antibody-PE (4B612)

## Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	PE
Clone:	4B612
Purification:	Protein A

## Applications

Verified Activity:	Flow cytometric analysis of Human VEGFR2(CD309) expression on HUVEC cells. Cells were stained with PE-conjugated anti-Human VEGFR2(CD309). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of intact cells.
Application:	FCM
Recommended	5 µl/Test, 0.1 mg/ml

## Properties

Stability & Storage:	Store at 2°C-8°C for 12 months, do not freeze. Keep away from direct sunlight. Sodium azide is toxic to cells and should be disposed of properly. Flush with large volumes of water during disposal.
Shipping:	Shipping with blue ice.

## Antigen Details

Immunogen:	Recombinant Protein: Human VEGFR2/KDR/Flk-1/CD309 Protein (TMPY-02361)
Antigen Species:	Human
Synonyms:	VEGFR2;FLK1;kinase insert domain receptor;VEGFR;CD309
Biology Area:	Cancer Drug Targets, Hemangioblast Markers, Receptor Tyrosine Kinases (RTKs)

## Research Background

VEGFR2 also called KDR or Flk-1, is identified as the receptor for VEGF and VEGFC and an early marker for endothelial cell progenitors, whose expression is restricted to endothelial cells in vivo. VEGFR2 was shown to be the primary signal transducer for angiogenesis and the development of pathological conditions such as cancer and diabetic retinopathy. It has been shown that VEGFR2 is expressed mainly in the endothelial cells, and the expression is upregulated in the tumor vasculature. Thus the inhibition of VEGFR2 activity and its downstream signaling are important targets for the treatment of diseases involving angiogenesis. VEGFR2 transduces the major signals for angiogenesis via its strong tyrosine kinase activity. However, unlike other representative tyrosine kinase receptors, VEGFR2 does not use the Ras pathway as major downstream signaling but rather uses the phospholipase C-protein kinase C pathway to signal mitogen-activated protein (MAP)-kinase activation and DNA synthesis. VEGFR2 is a direct and major signal transducer for pathological angiogenesis, including cancer and diabetic retinopathy, in cooperation with many other signaling partners; thus, VEGFR2 and its downstream signaling appear to be critical targets for the suppression of these diseases. VEGF and VEGFR2-mediated survival signaling are critical to endothelial cell survival, maintenance of the vasculature and alveolar structure, and regeneration of lung tissue. Reduced VEGF and VEGFR2 expression in emphysematous lungs has been linked to increased endothelial cell death

and vascular regression. Cancer Immunotherapy Immune Checkpoint Immunotherapy Targeted Therapy

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