Data Sheet (Cat.No.TMAY-01691)

TargetMol

Anti-Phospho-VEGF Receptor 2 (Tyr1175) Antibody (7E805)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human; Predicted to React with:Species predicted to react based on 100% sequence homology: Cynomolgus, Pig
Conjugation:	Unconjugated
Clone:	7E805
Purification:	Protein A

Applications

Verified Activity:	1. Western blot analysis of extracts from serum-starved HUVEC, untreated(line A) or treated with VEGF (50ng/mL, 2min; +)(line B), using Phospho-VEGF Receptor 2 (Tyr1175) rabbit monoclonal Antibody at 1:10000 dilution (upper) or Anti-Actin Antibody, Chimeric Rabbit Monoclonal at 1:50000 dilution (lower). 2. Western blot analysis of extracts from serum-starved HUVEC, untreated (line A); treated with VEGF (50ng/mL, 2min; +) (line B); treated with VEGF and λ-phosphatase (line C) using Phospho-VEGF Receptor 2 (Tyr1175) rabbit monoclonal Antibody at 1:10000 dilution. (Validation Experiment) 3. Western blot analysis of extracts from serum-starved HUVEC, untreated (line A); treated with VEGF (50ng/mL, 2min), without peptide (line B) or antigen-specific phosphopeptide (line C) or antigen-specific peptide (line D) using Phospho-VEGF Receptor 2 (Tyr1175) rabbit monoclonal Antibody at 1:10000 dilution. (Validation Experiment)
Application:	WB
Recommended	WB: 1:1000-1:10000

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: residues around Tyr1175 of Human Phospho-VEGF Receptor 2
Antigen Species:	Human
Synonyms:	p-VEGF Receptor 2 (Tyr1175);FLK1;VEGF Receptor 2 (p-Y1175);p-VEGF Receptor 2 (Y1175); VEGFR2;Phospho-VEGF Receptor 2 (Y1175);CD309;VEGF Receptor 2 (p-Tyr1175);VEGFR 2;VEGFR
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 ImmunotherapyImmune CheckpointImmunotherapyTargeted Therapy

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