VEGF Receptor 2 (55B11) Rabbit mAb (Cat. No. #2479) Datasheet

For Research Use Only. Not For Use In Diagnostic Procedures.

**Product Usage Information**

**Application**
- Western Blotting
- Immunoprecipitation
- Immunohistochemistry (Paraffin)
- Immunofluorescence (Frozen)
- Immunofluorescence (Immunocytochemistry)

**Dilution**
- Western Blotting: 1:1000
- Immunoprecipitation: 1:100
- Immunohistochemistry (Paraffin): 1:600
- Immunofluorescence (Frozen): 1:200
- Immunofluorescence (Immunocytochemistry): 1:200

**Reactivity**
- H (Human)
- M (Mouse)

**Sensitivity**
- Endogenous

**MW (kDa)**
- 210, 230

**Source/Isotype**
- Rabbit IgG

**UniProt ID**
- P35968

**Entrez-Gene Id**
- 3791

**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.

**Specificity / Sensitivity**

VEGF Receptor 2 (55B11) Rabbit Monoclonal Antibody detects endogenous levels of VEGF receptor 2 protein. This antibody does not cross-react with other family members.

**Species Reactivity:**
- Human, Mouse

**Species predicted to react based on 100% sequence homology:**
- Bovine

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a recombinant protein containing the carboxy-terminal 150 amino acid residues of human VEGF receptor 2.

**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). Major autophosphorylation sites of VEGFR2 are located in the kinase insert domain (Tyr951/996) and in the tyrosine kinase catalytic domain (Tyr1054/1059) (2). 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 (3). Phosphorylation at Tyr1212 provides a docking site for GRB2 binding and phospho-Tyr1175 binds the p85 subunit of PI3 kinase and PLCγ, as well as Shb (1,4,5). Signaling from VEGFR2 is necessary for the execution of VEGF-stimulated proliferation, chemotaxis and sprouting, as well as survival of cultured endothelial cells in vitro and angiogenesis in vivo (6-8).

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**APPLICATIONS KEY**
- WB: Western Blot
- IP: Immunoprecipitation
- IHC: Immunohistochemistry
- ChIP: Chromatin Immunoprecipitation
- F: Flow Cytometry
- EP: ELISA-Peptide

**CROSS-REACTIVITY KEY**
- H: human
- M: mouse
- R: rat
- Hm: hamster
- Mc: monkey
- Mi: mink
- C: chicken
- Dm: D. melanogaster
- X: Xenopus
- Z: zebrafish
- B: bovine
- Dg: dog
- Pg: pig
- Sc: S. cerevisiae
- Cc: C. elegans
- Hr: horse
- All: all species expected


**IMPORTANT:** For primary antibodies recommended for western blotting applications, we recommend incubating the membrane with diluted antibody at 4°C with gentle shaking overnight. Please refer to the western blot protocol found on the product web page for the antibody-specific diluent recommendation.
**VEGF Receptor 2 (55B11) Rabbit mAb**

**Limited Uses**

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