Anti-VEGF Receptor 1 Antibody

ER50803

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P
Molecular Wt:	Predicted band size: 151 kDa

Description: Tyrosine-protein kinase that acts as a cell-surface receptor for VEGFA, VEGFB and PGF, and plays an essential role in the development of embryonic vasculature, the regulation of angiogenesis, cell survival, cell migration, macrophage function, chemotaxis, and cancer cell invasion. Vascular endothelial growth factor receptor 1 is a protein that in humans is encoded by the FLT1 gene. Oncogene FLT belongs to the src gene family and is related to oncogene ROS. Like other members of this family, it shows tyrosine protein kinase activity that is important for the control of cell proliferation and differentiation. The sequence structure of the FLT gene resembles that of the FMS gene; hence, Yoshida et al. (1987) proposed the name FLT as an acronym for FMS-like tyrosine kinase. FLT1 has been shown to interact with PLCG1 and vascular endothelial growth factor B (VEGF-B).

Immunogen: Synthetic peptide within N-terminal human VEGFR1.

Positive control: Mouse liver tissue, mouse heart tissue, mouse brain tissue, mouse kidney tissue, human liver tissue, human kidney tissue.

Subcellular location: Cell membrane, endosome.

Database links: SwissProt: P17948 Human

Recommended Dilutions:

WB	1:1,000
IHC-P	1:200

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

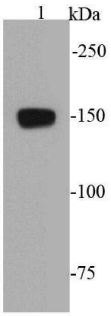

Fig1: Western blot analysis of VEGFR1 on mouse liver tissue lysate using anti- VEGFR1 antibody at 1/1000 dilution.

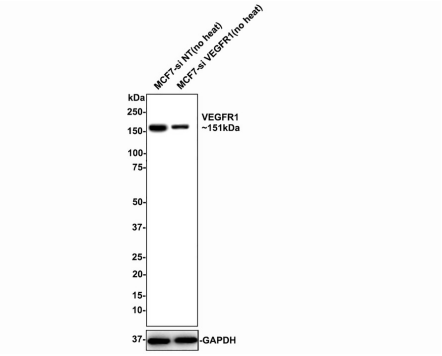

Fig2: Western blot analysis of VEGFR1 on different lysates with Rabbit anti-VEGFR1 antibody (ER50803) at 1/1,000 dilution.

Lane 1: MCF7-si NT cell lysate
Lane 2: MCF7-si VEGFR1 cell lysate

Lysates/proteins at 10 µg/Lane.

Predicted band size: 151 kDa
Observed band size: 151 kDa

Exposure time: 40 seconds;

4-20% SDS-PAGE gel.

ER50803 was shown to specifically react with VEGFR1 in Hela-si NT cells. Weakened band was observed when Hela-si VEGFR1 sample was tested. Hela-si NT and Hela-si VEGFR1 samples were subjected to SDS-PAGE. Proteins were transferred to a PVDF membrane and blocked with 5% NFDM in TBST for 1 hour at room temperature. The primary antibody (ER50803, 1/1,000) and Loading control antibody (Rabbit anti-GAPDH, ET1601-4, 1/10,000) were used in 5% BSA at room temperature for 2 hours. Goat Anti-rabbit IgG-HRP Secondary Antibody (HA1001) at 1:100,000 dilution was used for 1 hour at room temperature.

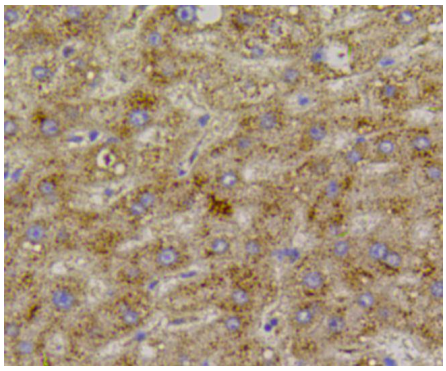

Fig3: Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-VEGFR1 antibody. Counter stained with hematoxylin.

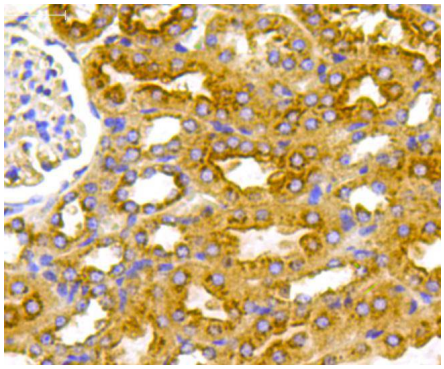

Fig4: Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-VEGFR1 antibody. Counter stained with hematoxylin.

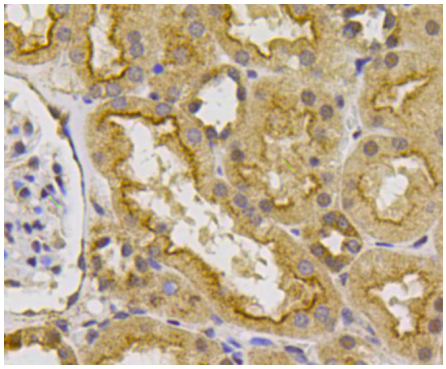

Fig5: Immunohistochemical analysis of paraffin-embedded human kidney tissue using anti-VEGFR1 antibody. Counter stained with hematoxylin.

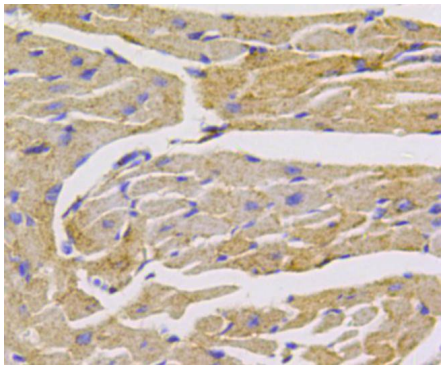

Fig6: Immunohistochemical analysis of paraffin-embedded mouse heart tissue using anti-VEGFR1 antibody. Counter stained with hematoxylin.

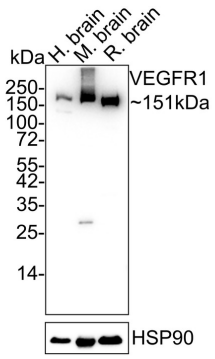

Fig7: Western blot analysis of VEGF Receptor 1 on different lysates with Rabbit anti-VEGF Receptor 1 antibody (ER50803) at 1/1,000 dilution.

Lane 1: Human brain tissue lysate
Lane 2: Mouse liver tissue lysate
Lane 3: Rat brain tissue lysate

Lysates/proteins at 40 µg/Lane.

Predicted band size: 151 kDa
Observed band size: 151 kDa

Exposure time: 10 seconds;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ER50803) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Background References

1. "The molecular basis of VEGFR-1 signal transduction pathways in primary human monocytes." Tchaikovski V., Fellbrich G., Waltenberger J. Arterioscler. Thromb. Vasc. Biol. 28:322-328(2008)
2. "Vascular endothelial growth factor receptor-1 in human cancer: concise review and rationale for development of IMC-18F1 (Human antibody targeting vascular endothelial growth factor receptor-1)." Schwartz J.D., Rowinsky E.K., Youssoufian H., Pytowski B., Wu Y. Cancer 116:1027-1032(2010)