

## Product datasheet for **TA336313**

### VEGF Receptor 1 (FLT1) Rabbit Polyclonal Antibody

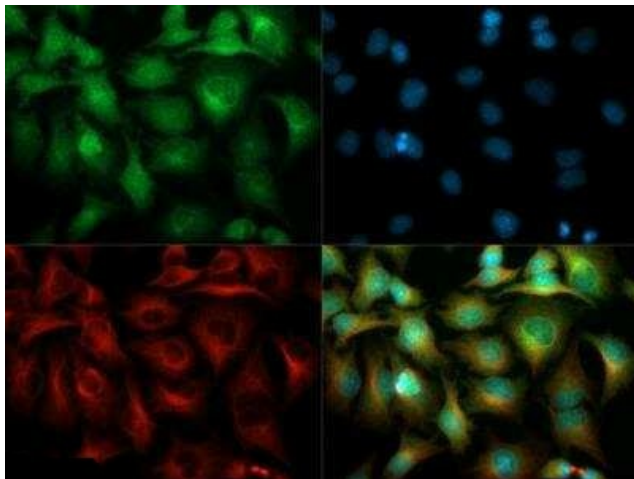
#### Product data:

|                       |   |
|-----------------------|---|
| Product Type:         | Primary Antibodies  |
| Applications:         | ICC/IF, IHC, WB   |
| Recommended Dilution: | Western Blot: 1:100 - 1:2000, Immunohistochemistry: 1:250 - 1:500, Immunohistochemistry-Paraffin: 1:250 - 1:500, Immunocytochemistry/ Immunofluorescence: 1:500   |
| Reactivity:           | Human   |
| Host:                 | Rabbit  |
| Clonality:            | Polyclonal  |
| Immunogen:            | A synthetic peptide made to an internal region of the mouse VEGF Receptor 1 protein (between residues 800-900) [UniProt# P35969]. There is 87% identity between the immunogen used for this production and the VEGF Receptor 2 protein. |
| Formulation:          | Tris-citrate/phosphate, pH 7, 0.1% Sodium azide. Store at 4C. Do not freeze.  |
| Concentration:        | lot specific  |
| Purification:         | Immunogen affinity purified   |
| Conjugation:          | Unconjugated  |
| Storage:              | Store at -20°C as received.   |
| Stability:            | Stable for 12 months from date of receipt.  |
| Gene Name:            | fms related tyrosine kinase 1   |
| Database Link:        | <a href="#">NP_001153392</a><br><a href="#">Entrez Gene 2321 Human</a><br><a href="#">P17948</a>  |

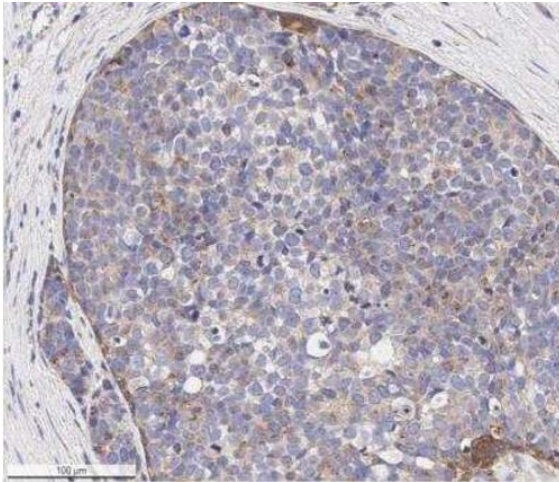


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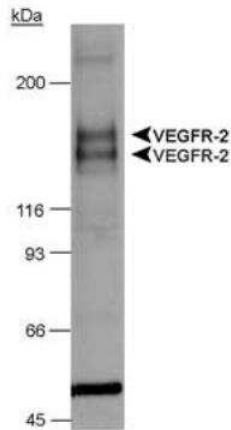
|                          |  |
|--------------------------|--|
| <b>Background:</b>       | <p>VEGF Receptor 1 (vascular endothelial growth factor receptor 1 or VEGFR1; also called Flt1 in mouse) is a tyrosine-protein kinase which acts as a cell-surface receptor for VEGFA, VEGFB and PGF ligands for playing an essential role in the embryonic vasculature development and regulation of angiogenesis (normal as well as cancerous tissues), cell survival, migration, macrophage function, chemotaxis, and tumor invasion. VEGFR1 is a 180-185 kD glycoprotein expressed primarily in vascular endothelial cells and also found in a wide range of non-endothelial cells, such as monocytes and macrophages, human trophoblasts, renal mesangial cells, vascular smooth muscle cells, dendritic cells and different human tumour cell types. Interestingly, VEGFR1 acts as a negative regulator of embryonic angiogenesis by inhibiting excessive proliferation of endothelial cells, whereas it promotes endothelial cell proliferation, survival and angiogenesis in adults. VEGFR1 expression is regulated by hypoxia through HREs in VEGFR1 promoter. It exists in an inactive conformation in the absence of bound ligand and binding of VEGFA, VEGFB or PGF leads to its dimerization followed by tyrosine residue autophosphorylation mediated activation. VEGFR1 phosphorylation sites includes Tyr794, Tyr1169, Tyr1213, Tyr1242, Tyr1327, Tyr1333 etc. and VEGFR1 phosphorylation pattern depends on the ligand, e.g. PlGF, but not VEGFA, induces phosphorylation of Tyr1309. VEGFR1 has been shown to exert its diverse biological activities through its effects on multiple signal transduction pathways including VEGF, KDR, PLCG, PI3K, MAPK etc.</p> |
| <b>Synonyms:</b>         | FLT; FLT-1; VEGFR-1; VEGFR1  |
| <b>Note:</b>             | <p>This VEGF Receptor 1 antibody is useful for Western blot, where a band is seen at ~180-230 kDa (the theoretical molecular weight of mouse VEGFR1 is ~150 kDa and human VEGFR1 is ~151 kDa). The difference in MWs is likely due to glycosylation or other post translational modifications. With CSF-1R/VEGFR2 chimera transfected lysates a doublet is seen at ~150 kDa representing VEGFR-2. An unknown band is also seen at ~50 kDa. Optimal working dilutions should be determined by the investigator.</p>   |
| <b>Protein Families:</b> | Druggable Genome, Protein Kinase, Secreted Protein   |
| <b>Protein Pathways:</b> | Cytokine-cytokine receptor interaction, Endocytosis, Focal adhesion  |

**Product images:**


Immunocytochemistry/Immunofluorescence:  
 VEGFR1/Flt-1 Antibody TA336313 - VEGF R1/Flt-1  
 antibody was tested in HeLa cells with DyLight  
 488 (green). Nuclei and alpha-tubulin were  
 counterstained with DAPI (blue) and DyLight 550  
 (red).



Immunohistochemistry-Paraffin: VEGFR1/Flt-1 Antibody TA336313 - Analysis of FFPE human breast carcinoma tissue section using 1:500 dilution of VEGFR1/Flt-1 antibody on a Bond Rx autostainer (Leica Biosystems). The assay involved 20 minutes of heat induced antigen retrieval (HIER) with 10mM sodium citrate buffer (pH 6.0) and endogenous peroxidase quenching using peroxide block. The sections were incubated with primary antibody for 30 minutes. Bond Polymer Refine Detection (Leica Biosystems) and DAB were used for signal detection which followed counterstaining with hematoxylin. Whole slide scanning and capturing of representative images (20X) were performed using Aperio AT2 (Leica Biosystems). This VEGFR1/Flt-1 antibody generated an expected membrane cytoplasmic staining of VEGFR1 protein in the cancer cells (punctate appearance typical of receptors). The tumor stroma/stromal cells did not show VEGFR1/Flt-1 immunopositivity.



Western Blot: VEGF R1/Flt-1 Antibody TA336313 - Chimeric CSF-1R/VEGFR-2 detection in transfected lysates.