

Product Datasheet

VEGFR1/Flt-1 Antibody (Y103)

NB110-57643

Unit Size: 0.1 ml

Store at -20C. Avoid freeze-thaw cycles.

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NB110-57643**VEGFR1/Flt-1 Antibody (Y103)**

Product Information	
Unit Size	0.1 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	Y103
Preservative	0.01% Sodium Azide
Isotype	IgG
Purity	Protein A or G purified
Buffer	49% PBS, 0.05% BSA and 50% Glycerol
Product Description	
Host	Rabbit
Gene ID	2321
Gene Symbol	FLT1
Species	Human, Mouse, Rat
Marker	Endothelial Cell Marker
Specificity/Sensitivity	The antibody can detect both VEGFR1 and its splice isoform sFlt1.
Immunogen	A synthetic peptide corresponding to residues in N-terminus of human VEGFR1 was used as immunogen.
Notes	Produced using Abcam's RabMab® technology. RabMab® technology is covered by the following U.S. Patents, No. 5,675,063 and/or 7,429,487.
Product Application Details	
Applications	Western Blot, Simple Western, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:500-1000, Simple Western, Flow Cytometry 1:1000, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:250, Immunoprecipitation 1:100, Immunohistochemistry-Paraffin 1:250, Immunohistochemistry-Frozen 1:250
Application Notes	In Western blot this antibody detects a band at approximately 180 kDa. Use in Immunohistochemistry-Frozen reported in scientific literature (PMID 24647000)



Publications

Mansour, SG;Zhang, WR;Moledina, D;Coca, SG;Jia, Y;Thiessen-Philbrook, H;McArthur, E;Inoue, K;Koyner, JL;Shlipak, MG;Wilson, FP;Garg, AX;Ishibe, S;Parikh, CR, ; The Association of Angiogenesis Markers With Acute Kidney Injury and Mortality After Cardiac Surgery *Am. J. Kidney Dis.* 2019-04-05 [PMID: 30955944] (ICC/IF, Human)

Gibbins KJ, Gibson-Corley KN, Brown AS et al. Effects of excess thromboxane A2 on placental development and nutrient transporters in a *Mus musculus* model of fetal growth restriction *Biol. Reprod.* 2018-01-17 [PMID: 29351577] (Mouse)

Iinuma H, Fukushima R, Inaba T et al. Phase I clinical study of multiple epitope peptide vaccine combined with chemoradiation therapy in esophageal cancer patients. *J Transl Med* 2014-04-11 [PMID: 24708624] (IHC-P, Human)

Ramasamy SK, Kusumbe AP, Wang L, Adams RH. Endothelial Notch activity promotes angiogenesis and osteogenesis in bone. *Nature* 2014-03-20 [PMID: 24647000] (IHC-Fr, Mouse)

Frank NY, Schatton T, Kim S et al. VEGFR-1 expressed by malignant melanoma-initiating cells is required for tumor growth. *Cancer Res* 2011-02-01 [PMID: 21212411]

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Sato W, Kosugi T, Zhang L et al. The pivotal role of VEGF on glomerular macrophage infiltration in advanced diabetic nephropathy . *Laboratory Investigation* 88 949-961. 2008-01-01 [PMID: 18607348] (WB, IF/IHC)

Cimpean AM, Raica M, Encicab S et al. Immunohistochemical expression of vascular endothelial growth factor A (VEGF), and its receptors (VEGFR1, 2) in normal and pathologic conditions of the human thymus . *Ann Anat* 190 238-245. 2008-01-01 [PMID: 18356031] (IF/IHC)

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Amura CR, Brodsky KS, Groff R et al. VEGF receptor inhibition blocks liver cyst growth in *pkd2(WS25/-)* mice . *Am J Physiol Cell Physiol* 293 C419-C428. 2007-01-01 [PMID: 17475663] (WB)

Kosugi T, Nakayama T, Li Q et al. Soluble-Flt-1 Gene Therapy Ameliorates Albuminuria, but Accelerates Tubulointerstitial Injury in Diabetic Mice . *Am J Physiol Renal Physiol.* 2009-01-01 [PMID: 20015944]



Immunohistochemistry Protocol for VEGF Receptor 1 Antibody (NB110-57643)

Immunohistochemistry Protocol for Paraffin-embedded Tissues

1. Solutions and reagents

1.1. Xylene

1.2. Ethanol, anhydrous denatured, histological grade (100%, 95%, 70%)

1.3. Washing buffer:

TBST washing buffer: 1XTBS/0.1% Tween-20

To prepare stock solution of 10X TBS: add 24.2 g Trizma base and 80 g sodium chloride to 1L of dH₂O. Adjust pH to 7.6.Working solution. 1XTBST/0.1% Tween-20: add 100ml 10XTBS to 900 ml dH₂O. Add 1 ml Tween-20 and mix well.1.4. Distilled water (dH₂O)

1.5. Antigen Retrieval Solution:

0.01M Sodium Citrate Buffer, pH 6.0

To prepare stock solutions:

Solution A. 0.1 M citric acid solution: dissolve 21.0 g of citric acid, monohydrate (C₆H₈O₇.H₂O) in 1 liter of dH₂O.Solution B. 0.1M sodium citrate solution: dissolve 29.4 g trisodium citrate dihydrate (C₆H₅Na₃O₇.2H₂O) in 1 liter of dH₂O.Working solution: Add 9 ml of Stock solution A and 41 ml of stock solution B to 450 ml of dH₂O. Adjust pH to 6.0.

1.6. 3% Hydrogene Peroxide

1.7. Blocking buffer:

PBS (Dulbeccos Phosphate Buffered Salts, 1X, catalog #21-031-CV from Mediatech, Inc.) + 10% serum (serum origin depends on the host of the secondary antibody)

1.8. Hematoxylin QS (catalog #H-3404 from Vector Laboratories, Inc.)

1.9. Permanent Mounting medium (VectaMount, catalog# H-5000 Vector Laboratories, Inc.)

2. Protocol**2.1. Deparaffinization/Rehydration**

2.1.1. Heat slides in an oven at 65C for 1 hour.

2.1.2. De-paraffinize/hydrate using the following series of washes: two Xylene washes (5 min each), followed by two 100% ethanol rinses (5 min each), followed by 95% ethanol, 70% ethanol, 50% ethanol, 30% ethanol, followed by H₂O and a TBST wash for 5 min on a shaker.**2.2. Antigen Retrieval**

2.2.1. Immerse slides into staining dish containing Antigen Retrieval Solution.

2.2.2. Place covered staining dish into the rice cooker. Add 120 ml of dH₂O.

2.2.3. When cook is turned to warm (about 20 to 30 min), unplug the cooker and remove the staining dish to the bench top.

2.2.4. Allow to cool down, without cover, for 20 min.

2.3. Staining

2.3.1. Wash slides with TBST for 5 min on a shaker.

2.3.2. Inactivate endogenous peroxidase by covering tissue with 3% hydrogen peroxide for 10 min.

2.3.3. Wash slides three times with TBST (3 min each on a shaker).

2.3.4. Block slides with the blocking solution for 1 hour.

2.3.5. Dilute primary antibody in the blocking buffer per recommendation on the data sheet.

2.3.6. Apply primary antibody to each section and incubate overnight in the humidified chamber (4C).

2.3.7. Wash slides three times with TBST (3 min each on a shaker).

2.3.8. Apply to each section secondary HRP-conjugated anti-rabbit antibody diluted in the blocking solution per manufacturers recommendation; incubate for 1 hour at room temperature.

2.3.9. Wash slides three times with TBST (3 min each on a shaker).

2.3.10. Add freshly prepared DAB substrate to the sections.

2.3.11. Incubate tissue sections with the substrate at room temperature until suitable staining develops (generally 2 to 5 min).

2.3.12. Rinse sections with water.

2.3.13. Counterstain with Hematoxylin.

2.3.14. Rinse sections with water.

2.3.15. Dehydrate samples using two rinses with 100% Ethanol (20 dips per rinse) followed by two rinses with Xylene (30 dips per rinse).

2.3.16. Mount coverslips on slides using Permount medium.



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