

Mouse anti-Human sFlt1-14 Monoclonal Antibody | anti-sFlt1-14 antibody

Anti-human sFlt1-14

CATALOG # AAA79326	HOST Mouse	REACTIVITY Human	APPLICATIONS Immunohistochemistry, Immunofluorescence, ELISA, Western Blot
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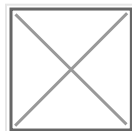
PRODUCT SYNONYMS

sFlt1-14; Monoclonal Antibody; Anti-human sFlt1-14; Fms-like tyrosine kinase 1; Vascular permeability factor receptor; anti-sFlt1-14 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Clone Number	180F3B4
Purity/Purification	Protein G purified
Form/Format	Lyophilized
Applicable Applications for anti-sFlt1-14 antibody	IHC (Immunohistochemistry), IF (Immunofluorescence), ELISA, WB (Western Blot)
Preparation	This antibody was produced from a hybridoma (mouse myeloma fused with spleen cells from a mouse) immunized with a peptide against a part of the unique C terminal end of sFlt1-14 (DQEAPYLLRNLSDH)
Clone Ab feature	#180F3B4: IgG ₁
Immunogen	Peptide: DQEAPYLLRNLSDH
Buffer	PBS
Reconstitution	Centrifuge vial prior to opening. Reconstitute in sterile water to a concentration of 0.1-1.0 mg/ml.
Warnings	Reagents contain sodium azide. Under acidic conditions sodium azide yields hydrazoic acid, this is extremely toxic. Azide compounds should be diluted with running water before discarding. These precautions are recommended to avoid injury.
Preparation and Storage	The lyophilized antibody is stable at room temperature for up to 1 month. The reconstituted antibody is stable for at least two weeks at 2-8 degree C. Frozen aliquots are stable for at least 6 months when stored at -20 degree C.

IMAGES



IHC (Immunohistochemistry)

Fig. 4: Immunoperoxidase staining of paraffin-embedded sections of human foreskin with mouse anti-human sFlt1-14 antibody. (D) Control; Fixation: 4% PFA (app. 25min); Dilution: 1:100-500. The staining in smooth muscle cells is visible.



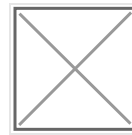
IF (Immunofluorescence)

Fig. 3: Immunofluorescence staining (green) of cryo-sections of human foreskin with mouse anti-human sFlt1-14 antibody [Cat# AAA79326] and counter staining of nuclei with Dapi (blue). (B) Control; Fixation: 4% PFA (app. 25min); Dilution: 1:500. Staining in smooth muscle cells, the perineurium of nerves and the Stratum basale of the epidermis as well as some scattered cells.



ELISA

Fig. 2: Direct ELISA: recombinant human sFlt-1(D5) [Cat# sFlt-1 [Cat# and sFlt1-14 [Cat# INQUIRE] were coated with 1ug/ml in PBS. The sFlt1-14 specific mouse anti-human sFlt1-14 antibody generated against a peptide from the unique C terminal end was used with 2ug/ml, the Flt-1 specific mouse anti-human Flt-1 #EWI [Cat# recognizing all Flt-1 proteins was used as control [1ug/ml].



WB (Western Blot)

Fig. 1: Western Blot Analysis of recombinant human sFlt-1(D5) [Cat# sFlt-1 [Cat# sFlt1-14 [Cat# INQUIRE], sKDR(D7) [Cat# and sFLT-4 [Cat# using a monoclonal mouse anti-human sFlt1-14 generated against a peptide from the unique C terminal end (left panel) and a monoclonal mouse anti-human Flt-1 [Cat# recognizing all Flt-1 proteins used as control.

ADDITIONAL INFORMATION

Related Product Information for anti-sFlt1-14 antibody

A human-specific splicing variant of vascular endothelial growth factor (VEGF) receptor 1 (Flt1) was discovered, producing a soluble receptor (designated sFlt1-14) that is qualitatively different from the previously described soluble receptor (sFlt1) and functioning as a potent VEGF inhibitor. sFlt1-14 is generated in a cell type-specific fashion, primarily in non-endothelial cells. Notably, in vascular smooth muscle cells, all Flt1 messenger RNA is converted to sFlt1-14, whereas endothelial cells of the same human vessel express sFlt1. sFlt1-14 expression by vascular smooth muscle cells is dynamically regulated as evidenced by its upregulation on coculture with endothelial cells or by direct exposure to VEGF. Increased production of soluble VEGF receptors during pregnancy is entirely attributable to induced expression of placental sFlt1-14 starting by the end of the first trimester. Expression is dramatically elevated in the placenta of women with preeclampsia, specifically induced in abnormal clusters of degenerative syncytiotrophoblasts known as syncytial knots, where it may undergo further messenger RNA editing. sFlt1-14 is the predominant VEGF-inhibiting protein produced by the preeclamptic placenta, accumulates in the circulation, and hence is capable of neutralizing VEGF in distant organs affected in preeclampsia. Together, these findings revealed a new natural VEGF inhibitor that has evolved in humans, possibly to protect non-endothelial cells from adverse VEGF signaling. Furthermore, the study uncovered the identity of a VEGF-blocking protein implicated in preeclampsia.

References

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2. Christie P, Clin Endocrinol Metab 94(7):2524–2530, 2009
3. Saunder CA, Int J Mol Sci 16, 12436-12453, 2015
4. Steinberg G, Thromb Res 123 Suppl 2:S93-9, 2009
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6. Burke SD, JCI doi:10.1172/JCI83918, 2016

NCBI AND UNIPROT INFORMATION

NCBI Accession #	NP_001153502.1
NCBI GenBank Nucleotide #	NM_0001160030.1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/sflt1-14-antibody-clone-180f3b4-immunohistochemistry-immunofluorescence-western-blot-elisa/79326>