

# VEGF Receptor 3 Monoclonal Antibody (AFL4), eBioscience™

## Product Details

Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse, Human
Host/Isotype	Rat / IgG2a, kappa
Class	Monoclonal
Type	Antibody
Clone	AFL4
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_467795

Applications	Tested Dilution	Publications
Western Blot (WB)	Assay-Dependent	7 Publications
Immunohistochemistry (IHC)	-	9 Publications
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	Assay-Dependent	1 Publication
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	Assay-Dependent	3 Publications
Immunoprecipitation (IP)	Assay-Dependent	1 Publication
Neutralization (Neu)	Assay-Dependent	-
Functional Assay (FN)	Assay-Dependent	-

## Product Specific Information

**Description:** The AFL4 monoclonal antibody reacts with the mouse VEGF receptor-3, also known as Flt-4. This 195 kDa molecule was identified as an endothelial-specific member of the receptor tyrosine kinase (RTK) family. During early embryogenesis all endothelial cells express VEGFR-3, while in the adult tissues, VEGFR-3 expression disappears from the vascular endothelial cells and is observed only on the lymphatic endothelium. However, VEGFR-3 expression is induced in the adult tissue upon tumor implementation suggesting an important role for this receptor in the tumor angiogenesis. VEGF-C and VEGF-D bind to and activate VEGFR-3. AFL4 is an antagonist mAb.

**Applications Reported:** The AFL4 antibody has been reported for use in flow cytometric analysis, immunoprecipitation, immunoblotting (WB), and immunohistochemical staining of frozen tissue sections. It has also been reported in blocking of ligand binding. (Please use Functional Grade purified AFL4, Product # 16-5988, in functional assays).

**Applications Tested:** The AFL4 antibody has been tested by flow cytometric analysis of in vitro differentiated mouse endothelial cells. In brief, mouse ES cells were incubated on collagen IV matrix for 4 days and subsequently stimulated with VEGF under

serum free conditions to induce further differentiation. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

23 References

Western Blot (7)

<p>Cell reports</p> <p><b>G-Protein-Coupled Receptor-2-Interacting Protein-1 Controls Stalk Cell Fate by Inhibiting Delta-like 4-Notch1 Signaling.</b></p> <p>"Published figure using VEGF Receptor 3 monoclonal antibody (Product # 14-5988-82) in Western Blot"</p> <p>Authors: Majumder S,Zhu G,Xu X,Senchanthisai S,Jiang D,Liu H,Xue C,Wang X,Coia H,Cui Z,Smollock EM,Libby RT, Berk BC,Pang J</p>	<p>Year</p> <p>2016</p>
<p>Genes &amp; development</p> <p><b>Ephrin-B2 controls PDGFR internalization and signaling.</b></p> <p>"14-5988 was used in Western Blotting to show that ephrin-B2 is an important regulator of PDGFR endocytosis, acting as a molecular switch controlling the downstream signaling activity of this receptor in mural cells."</p> <p>Authors: Nakayama A,Nakayama M,Turner CJ,Höing S,Lepore JJ,Adams RH</p>	<p>Year</p> <p>2013</p> <p>Species</p> <p>Mouse</p> <p>Dilution</p> <p>1:1000</p>

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Immunohistochemistry (9)

<p>Life science alliance</p> <p><b>VEGFR3 modulates brain microvessel branching in a mouse model of 22q11.2 deletion syndrome.</b></p> <p>"Published figure using VEGF Receptor 3 monoclonal antibody (Product # 14-5988-82) in Immunohistochemistry"</p> <p>Authors: Cioffi S,Flore G,Martucciello S,Bilio M,Turturo MG,Illingworth E</p>	<p>Year</p> <p>2022</p>
<p>Nature communications</p> <p><b>Lipid droplet degradation by autophagy connects mitochondria metabolism to Prox1-driven expression of lymphatic genes and lymphangiogenesis.</b></p> <p>"Published figure using VEGF Receptor 3 monoclonal antibody (Product # 14-5988-82) in Immunohistochemistry"</p> <p>Authors: Meçe O,Houbaert D,Sassano ML,Durré T,Maes H,Schaaf M,More S,Ganne M,García-Caballero M,Borri M, Verhoeven J,Agrawal M,Jacobs K,Bergers G,Blacher S,Ghesquière B,Dewerchin M,Swinnen JV,Vinckier S,Soengas MS,Carmeliet P,Noël A,Agostinis P</p>	<p>Year</p> <p>2022</p>

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- IHC (P) (1)
- IHC (F) (1)
- ICC/IF (1)
- Flow (3)
- IP (1)

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