

CD304 (Neuropilin-1) Monoclonal Antibody (3DS304M), PE-eFluor™ 610, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), PE-eFluor™ 610, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	3DS304M
Conjugate	PE-eFluor™ 610
Excitation/Emission Max	565/606 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2574600

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	2 Publications

Product Specific Information

Description: The monoclonal antibody 3DS304M recognizes mouse CD304 (Neuropilin-1), a type 1 transmembrane glycoprotein present on the surface of multiple cell types, including: regulatory T cells (Treg), NKT cells, DC, certain types of stem cells, neurons, endothelial cells, and some neoplastic cells. Neuropilin-1, in complex with plexins, serves as a co-receptor for type 3 semaphorins in growing neurons. It is also involved in the process of angiogenesis being a part of a functional receptor for VEGF in endothelial cells. In mice, Neuropilin-1 is expressed on thymus-derived natural Treg but not peripherally induced Treg. In addition, transient expression on recently activated non-regulatory T cells has been observed. Neuropilin-1 has been used as a marker of recent thymic emigrants in the mouse iNKT cell population. It has been shown that Neuropilin-1 forms a complex with TGF beta receptors, activating the latent form of TGF beta (LAP-TGF beta 1) and augmenting canonical Smad2/3 signaling.

This 3DS304M antibody will recognize formaldehyde-fixed as well as methanol-treated epitopes.

Applications Reported: This 3DS304M antibody has been reported for use in intracellular staining followed by flow cytometric analysis.

Applications Tested: This 3DS304M antibody has been tested by intracellular staining and flow cytometric analysis of mouse splenocytes using the Foxp3/Transcription Factor Staining Buffer Set (cat. 00-5523) and protocol. Please refer to Best Protocols: Protocol B: One step protocol for (nuclear) intracellular proteins located under the Resources Tab online. This can be used at less than or equal to 0.5 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in

a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

PE-eFluor® 610 can be excited with laser lines from 488-561 nm and emits at 607 nm. We recommend using a 610/20 band pass filter (equivalent to PE-Texas Red®). Please make sure that your instrument is capable of detecting this fluorochrome.

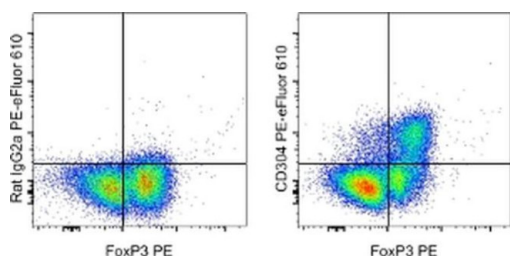
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency /compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488-561 nm; Emission: 607 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For CD304 (Neuropilin-1) Monoclonal Antibody (3DS304M), PE-eFluor™ 610, eBioscience™



CD304 (Neuropilin-1) Antibody (61-3041-82) in Flow
Staining of mouse splenocytes with Anti-Mouse CD4 eFluor® 450 (Product # 48-0042-82) and 0.25 µg of Rat IgG2a K Isotype Control PE-eFluor® 610 (Product # 61-4321-82) (left) or 0.25 µg of Anti-Mouse CD304 (Neuropilin-1) PE-eFluor® 610 (right) followed by intracellular staining with Anti-Mouse/Rat Foxp3 PE (Product # 12-5773-82) using the Foxp3/Transcription Factor Staining Buffer Set (Product # 00-5523-00) and protocol. Viable CD4+ lymphocytes, as determined by Fixable Viability Dye eFluor® 780 (Product # 65-0865-14), were used for analysis.

2 References

Flow Cytometry (2)

<p>Cell reports</p> <p>Brown adipose tissue involution associated with progressive restriction in progenitor competence.</p> <p>"Published figure using CD304 (Neuropilin-1) monoclonal antibody (Product # 61-3041-82) in Flow Cytometry"</p> <p>Authors: Huang Z,Zhang Z,Moazzami Z,Heck R,Hu P,Nanda H,Ren K,Sun Z,Bartolomucci A,Gao Y,Chung D,Zhu W, Shen S,Ruan HB</p>	<p>Year</p> <p>2022</p>
<p>Immunity</p> <p>A distal Foxp3 enhancer enables interleukin-2 dependent thymic Treg cell lineage commitment for robust immune tolerance.</p> <p>"61-3041-82 was used in Flow cytometry/Cell sorting to investigate how STAT5 acts directly on the Foxp3 locus to promote its expression."</p> <p>Authors: Dikiy S,Li J,Bai L,Jiang M,Janke L,Zong X,Hao X,Hoyos B,Wang ZM,Xu B,Fan Y,Rudensky AY,Feng Y</p>	<p>Year</p> <p>2021</p> <p>Species</p> <p>Mouse</p>

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.