

CD304 (Neuropilin-1) Monoclonal Antibody (3DS304M), PerCP-eFluor™ 710, 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), PerCP-eFluor™ 710, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	3DS304M
Conjugate	PerCP-eFluor™ 710
Excitation/Emission Max	482/708 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_2573741

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.06 µg/test	3 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 flow cytometric analysis.

Applications Tested: This 3DS304M antibody has been tested by flow cytometric analysis of mouse splenocytes. This can be used at less than or equal to 0.06 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.

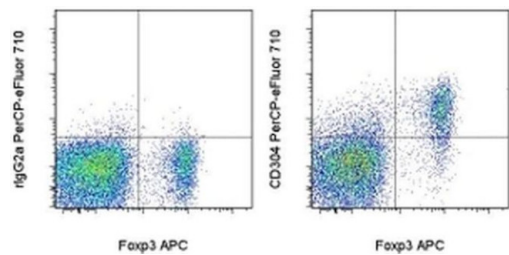
PerCP-eFluor® 710 emits at 710 nm and is excited with the blue laser (488 nm); it can be used in place of PerCP-Cyanine5.5. We recommend using a 710/50 bandpass filter, however, the 695/40 bandpass filter is an acceptable alternative. Please make sure that your instrument is capable of detecting this fluorochrome.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 µL of cell sample + 100 µL of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 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 nm; Emission: 710 nm; Laser: Blue Laser.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For CD304 (Neuropilin-1) Monoclonal Antibody (3DS304M), PerCP-eFluor™ 710, eBioscience™



CD304 (Neuropilin-1) Antibody (46-3041-82) in Flow
Surface staining of BALB/c splenocytes with Anti-Mouse CD4 eFluor® 450 (Product # 48-0042-82) and 0.03 µg of Rat IgG2a K Isotype Control PerCP-eFluor® 710 (Product # 46-4321-82) (left) or 0.03 µg of Anti-Mouse CD304 (Neuropilin-1) PerCP-eFluor® 710 (right), followed by intracellular staining with Anti-Mouse/Rat Foxp3 APC (Product # 17-5773-82) using the Foxp3 /Transcription Factor Staining Buffer Set (Product # 00-5523-00) and protocol. CD4+ lymphocytes were used for analysis.

3 References

Flow Cytometry (3)

<p>Cancer gene therapy</p> <p>Intratumoral DNA-based delivery of checkpoint-inhibiting antibodies and interleukin 12 triggers T cell infiltration and anti-tumor response.</p> <p>"46-3041-82 was used in Flow cytometry/Cell sorting to evaluate the simultaneous delivery of the cytokine and checkpoint-inhibiting antibodies by intratumoral DNA electroporation in mice."</p> <p>Authors: Jacobs L, Yshii L, Junius S, Geukens N, Liston A, Hollevoet K, Declerck P</p>	<p>Year 2022</p> <p>Species Mouse</p>
<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 # 46-3041-82) 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 2022</p>

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