

CD304 (Neuropilin-1) Monoclonal Antibody (3DS304M), Super Bright™ 600, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), Super Bright™ 600, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	3DS304M
Conjugate	Super Bright™ 600
Excitation/Emission Max	414/601 nm
Form	Liquid
Concentration	0.2 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2762775

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/Test	1 Publication

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.

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 may 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.

Super Bright 600 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 600 nm. We recommend using a 610/20 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright

Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer for more information.

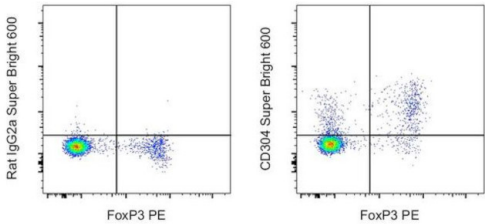
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (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: 405 nm; Emission: 600 nm; Laser: Violet Laser

Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD304 (Neuropilin-1) Monoclonal Antibody (3DS304M), Super Bright™ 600, eBioscience™



CD304 (Neuropilin-1) Antibody (63-3041-82) in Flow
BALB/c mouse splenocytes were stained with CD4 Monoclonal Antibody, FITC (Product # 11-0042-82) and 0.25 µg of Rat IgG2a kappa Isotype Control, Super Bright 600 (Product # 63-4321-82) (left) or 0.25 µg of CD304 Monoclonal Antibody, Super Bright 600 (right), followed by intracellular staining with FoxP3 Monoclonal Antibody, 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.

1 Reference

Flow Cytometry (1)

Cell reports	Year
<p>Brown adipose tissue involution associated with progressive restriction in progenitor competence.</p> <p>"Published figure using CD304 (Neuropilin-1) monoclonal antibody (Product # 63-3041-82) 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>	2022

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