CD170 (Siglec F) Monoclonal Antibody (1RNM44N), Super Bright™ 780, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Rat / IgG2a, kappa
Recommended Isotype Control	Rat IgG2a kappa Isotype Control (eBR2a), Super Bright™ 780, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	1RNM44N
Conjugate	Super Bright™ 780
Excitation/Emission Max	413/780 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_2744907

Applications	Tested Dilution	Publications
Immunohistochemistry (IHC)	-	2 Publications
Flow Cytometry (Flow)	0.5 µg/test	7 Publications

Product Specific Information

Description: This 1RNM44N monoclonal antibody recognizes mouse CD170, also known as Siglec F. Siglec F is a cell surface lectin belonging to the Ig superfamily that binds glycoconjugates containing sialic acids that are commonly found on various cell types. The cytoplasmic domain of Siglec F contains an immunoreceptor tyrosine-based inhibitory motif (ITIM) that initiates intracellular signaling upon ligand binding. Siglec F is expressed mostly on eosinophils and alveolar macrophages and lower levels of this receptor have also been reported on immature myelomonocytic cells. mouse Siglec F is a functional ortholog of human Siglec 8, however, unlike human Siglec 8, mouse Siglec F is not expressed on mast cells.

This 1RNM44N antibody will recognize a formaldehyde-fixed epitope.

Applications Reported: This 1RNM44N antibody has been reported for use in flow cytometric analysis.

Applications Tested: This 1RNM44N antibody has been tested by flow cytometric analysis of mouse thioglycolate-elicited peritoneal exudate cells. 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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Super Bright 780 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 780 nm. We recommend using a 780/60 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.

In some experiments, we have observed that compensation values for Super Bright 780-conjugated antibodies are higher in the violet 450/50 channel when using UltraComp eBeads microspheres (Product # 01-2222-42) as compared to single-color stained cells. In such circumstances, we would recommend setting compensation with cells. We have also observed this in some experiments using AbC Total Antibody Compensation beads (Product # A10497).

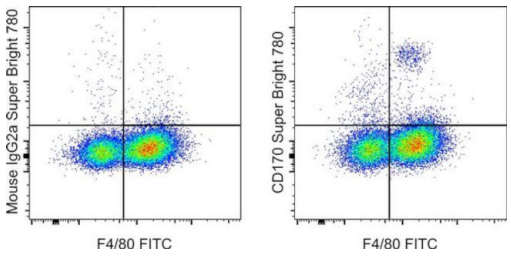
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

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: 780 nm; Laser: Violet Laser

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

Product Images For CD170 (Siglec F) Monoclonal Antibody (1RNM44N), Super Bright™ 780, eBioscience™



CD170 (Siglec F) Antibody (78-1702-80) in Flow
BALB/c mouse thioglycolate-elicited peritoneal exudate cells were stained with F4 /80 Monoclonal Antibody, FITC (Product # 11-4801-82) and 0.25 µg of Rat IgG2a kappa Isotype Control, Super Bright 780 (Product # 78-4321-82) (left) or 0.25 µg of CD170 Monoclonal Antibody, Super Bright 780 (right). Total viable cells were used for analysis.

View more figures on thermofisher.com

9 References

Immunohistochemistry (2)

Molecular neurodegeneration

Year
2022

Amyloid-beta and tau pathologies act synergistically to induce novel disease stage-specific microglia subtypes.

"Published figure using CD170 (Siglec F) monoclonal antibody (Product # 78-1702-82) in Immunohistochemistry"

Authors: Kim DW,Tu KJ,Wei A,Lau AJ,Gonzalez-Gil A,Cao T,Braunstein K,Ling JP,Troncoso JC,Wong PC,Blackshaw S,Schnaar RL,Li T

MedComm

Year
2022

Single-cell transcriptomics reveals distinct cell response between acute and chronic pulmonary infection of *Pseudomonas aeruginosa*.

"Published figure using CD170 (Siglec F) monoclonal antibody (Product # 78-1702-82) in Immunohistochemistry"

Authors: Hu X,Wu M,Ma T,Zhang Y,Zou C,Wang R,Zhang Y,Ren Y,Li Q,Liu H,Li H,Wang T,Sun X,Yang Y,Tang M,Li X,Li J,Gao X,Li T,Zhou X

Flow Cytometry (7)

Advanced science (Weinheim, Baden-Wurttemberg, Germany)

Year
2023

Group 2 Innate Lymphoid Cells Protect Mice from Abdominal Aortic Aneurysm Formation via IL5 and Eosinophils.

"Published figure using CD170 (Siglec F) monoclonal antibody (Product # 78-1702-82) in Flow Cytometry"

Authors: Zhang Y,Liu T,Deng Z,Fang W,Zhang X,Zhang S,Wang M,Luo S,Meng Z,Liu J,Sukhova GK,Li D,McKenzie ANJ,Libby P,Shi GP,Guo J

PLoS pathogens

Year
2021

Species
Mouse

Host phospholipid peroxidation fuels ExoU-dependent cell necrosis and supports Pseudomonas aeruginosa-driven pathology.

"78-1702-82 was used in Flow Cytometry to identify an original lipid peroxidation-based virulence mechanism as a strong contributor of microbial phospholipase-driven pathology."

Authors: Bagayoko S,Leon-Icaza SA,Pinilla M,Hessel A,Santoni K,Péricat D,Bordignon PJ,Moreau F,Eren E,Boyancé A,Naser E,Lefèvre L,Berrone C,Iakobachvili N,Metais A,Rombouts Y,Lugo-Villarino G,Coste A,Attrée I,Frank DW,Clevers H,Peters PJ,Cougoule C,Planès R,Meunier E

View more Flow references on thermofisher.com

More applications with references on thermofisher.com