

# 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<sup>5</sup> to 10<sup>8</sup> 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).

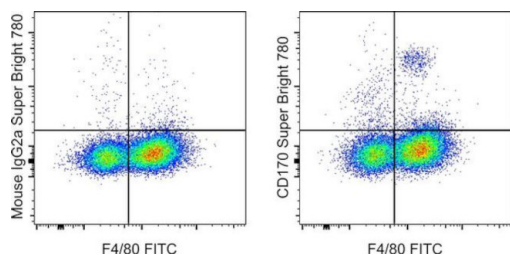
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ L 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  $\mu$ g of Rat IgG2a kappa Isotype Control, Super Bright 780 (Product # 78-4321-82) (left) or 0.25  $\mu$ g of CD170 Monoclonal Antibody, Super Bright 780 (right). Total viable cells were used for analysis.

[View more figures on thermofisher.com](https://www.thermofisher.com)

## Immunohistochemistry (2)

Molecular neurodegeneration

### 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

Year  
2022

MedComm

### 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

Year  
2022

## Flow Cytometry (7)

Advanced science (Weinheim, Baden-Wurttemberg, Germany)

### 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

Year  
2023

PLoS pathogens

### 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

Year  
2021

Species  
Mouse

[View more Flow references on thermofisher.com](#)

## More applications with references on thermofisher.com

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