

CD223 (LAG-3) Monoclonal Antibody (eBioC9B7W (C9B7W)), Super Bright™ 645, eBioscience™

Product Details

Size	100 µg
Species Reactivity	Mouse
Host/Isotype	Rat / IgG1, kappa
Recommended Isotype Control	Rat IgG1 kappa Isotype Control (eBRG1), Super Bright™ 645, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioC9B7W (C9B7W)
Conjugate	Super Bright™ 645
Excitation/Emission Max	414/645 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_2744872

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.5 µg/test	3 Publications

Product Specific Information

Description: The eBioC9B7W monoclonal antibody recognizes mouse CD223 (LAG-3, LAG3) protein expressed by activated alpha/beta-TCR bearing T cells, a subset of gamma/delta-TCR bearing T cells and a subset of NK cells. CD223 is a 70 kDa type I transmembrane protein with a structure that is similar to CD4. However, a soluble form of human CD223 has been detected by ELISA in human serum, and data suggest that mouse CD223 is proteolytically cleaved in the D4 domain. This results in a 54 kDa fragment containing all the extracellular domains, and a 16 kDa fragment containing the intracellular and transmembrane domains. The 54 kDa can remain membrane-associated or be released as soluble CD223.

CD223 binds to MHC class II with higher affinity than CD4, and it is thought that this interaction is involved in the negative regulation of T-cell activation and homeostatic proliferation. Furthermore, CD223 is expressed by CD4+CD25+ regulatory T cells, and it has been suggested that CD223 may be involved in their regulatory function.

Applications Reported: This eBioC9B7W (C9B7W) antibody has been reported for use in flow cytometric analysis.

Applications Tested: This eBioC9B7W (C9B7W) antibody has been tested by flow cytometric analysis of stimulated 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 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend using a 660/20 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.

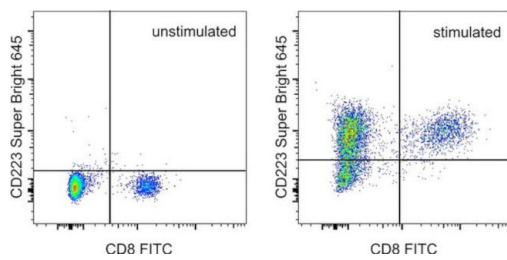
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 μ L of cell sample + 100 μ 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: 645 nm; Laser: Violet Laser

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

Product Images For CD223 (LAG-3) Monoclonal Antibody (eBioC9B7W (C9B7W)), Super Bright™ 645, eBioscience™



CD223 (LAG-3) Antibody (64-2231-82) in Flow

Swiss Webster mouse splenocytes were unstimulated (left) or stimulated for 72 hours with CD3e and CD28 Monoclonal Antibodies, Functional Grade (Product # 16-0031-85 and Product # 16-0281-85) (right). Cells were then stained with CD8 Monoclonal Antibody, FITC (Product # 11-0081-82) and 0.25 μ g of CD223 Monoclonal Antibody, Super Bright 645. Total viable cells were used for analysis, as determined by 7-AAD (Product # 00-6993-50).

3 References

Flow Cytometry (3)

Journal for immunotherapy of cancer

BRCA1 deficiency in mature CD8⁺ T lymphocytes impairs antitumor immunity.

"Published figure using CD223 (LAG-3) monoclonal antibody (Product # 64-2231-82) in Flow Cytometry"

Authors: Wu B, Qi L, Chiang HC, Pan H, Zhang X, Greenbaum A, Stark E, Wang LJ, Chen Y, Haddad BR, Claggett D, Isaacs C, Elledge R, Horvath A, Hu Y, Li R

Year
2023

Nature communications

Breast cancer cell-derived extracellular vesicles promote CD8⁺T cell exhaustion via TGF- type II receptor signaling.

"Published figure using CD223 (LAG-3) monoclonal antibody (Product # 64-2231-82) in Flow Cytometry"

Authors: Xie F, Zhou X, Su P, Li H, Tu Y, Du J, Pan C, Wei X, Zheng M, Jin K, Miao L, Wang C, Meng X, van Dam H, Ten Dijke P, Zhang L, Zhou F

Year
2022

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

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