

# CD223 (LAG-3) Monoclonal Antibody (3DS223H), Super Bright™ 645, eBioscience™

| Product Details             |  |
|-----------------------------|--|
| Size                        | 100 Tests  |
| Species Reactivity          | Human  |
| Published Species           | Human  |
| Host/Isotype                | Mouse / IgG1, kappa  |
| Recommended Isotype Control | Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Super Bright™ 645, eBioscience™ |
| Class                       | Monoclonal   |
| Type                        | Antibody   |
| Clone                       | 3DS223H  |
| Conjugate                   | Super Bright™ 645  |
| Excitation/Emission Max     | 414/645 nm   |
| Immunogen                   | hCD223-FC PFA 4%   |
| Form                        | Liquid   |
| Concentration               | 5 µL/Test  |
| 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_2688269   |

| Applications          | Tested Dilution    | Publications   |
|-----------------------|--------------------|----------------|
| Flow Cytometry (Flow) | 5 µL (0.5 µg)/test | 3 Publications |

## Product Specific Information

Description: This 3DS223H monoclonal antibody recognizes human CD223 also known as Lymphocyte Activation Gene 3 (LAG-3). LAG-3 is a 70-kDa surface glycoprotein belonging to the Ig superfamily with homology to CD4. LAG-3 binds to MHC class II with higher affinity than CD4 and is thought to be involved in the negative regulation of T cell activation and homeostatic proliferation. Surface expression of LAG-3 has been reported on activated T cells (including regulatory T cells) and NK cells. CD8+ T cells usually express LAG-3 at significantly higher levels than CD4+ T cells. Coexpression of LAG-3 and CD49b has been proposed to identify human and mouse Type 1 regulatory T cells (Tr1 cells).

Applications Reported: This 3DS223H antibody has been reported for use in flow cytometric analysis.

Applications Tested: This 3DS223H antibody has been pre-diluted and tested by flow cytometric analysis of stimulated normal human peripheral blood cells. This may be used at 5 µL (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.

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.

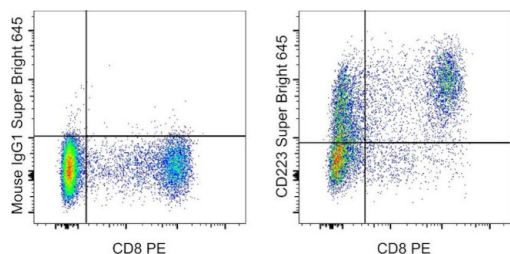
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100  $\mu$ 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 degrees 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 (3DS223H), Super Bright™ 645, eBioscience™



#### CD223 (LAG-3) Antibody (64-2239-42) in Flow

Normal human peripheral blood cells were stimulated with CD3 and CD28 Monoclonal Antibodies, Functional Grade (Product # 16-0037-81 and Product # 16-0289-81) and then stained with CD8 Monoclonal Antibody, PE (Product # 12-0086-42) and Mouse IgG1 kappa Isotype Control, Super Bright 645 (Product # 64-4714-82) (left) or CD223 Monoclonal Antibody, Super Bright 645 (right). Cells in the lymphocyte gate were used for analysis.

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

## Flow Cytometry (3)

### Nature communications

#### Longitudinal single-cell profiling reveals molecular heterogeneity and tumor-immune evolution in refractory mantle cell lymphoma.

"64-2239-42 was used in Flow Cytometry to demonstrate that due to 17q gain, BIRC5/survivin expression is upregulated in resistant MCL tumor cells and targeting BIRC5 results in marked tumor inhibition in preclinical models."

Authors: Zhang S, Jiang VC, Han G, Hao D, Lian J, Liu Y, Zhang R, McIntosh J, Wang R, Dang M, Dai E, Wang Y, Santos D, Badillo M, Leeming A, Chen Z, Hartig K, Bigcal J, Zhou J, Kanagal-Shamanna R, Ok CY, Lee H, Steiner RE, Zhang J, Song X, Nair R, Ahmed S, Rodriguez A, Thirumurthi S, Jain P, Wagner-Bartak N, Hill H, Nomie K, Flowers C, Futreal A, Wang L, Wang M

Year  
2021

Species  
Human

### Viruses

#### MAVS Genetic Variation Is Associated with Decreased HIV-1 Replication In Vitro and Reduced CD4<sup>+</sup> T Cell Infection in HIV-1-Infected Individuals.

"Published figure using CD223 (LAG-3) monoclonal antibody (Product # 64-2239-42) in Flow Cytometry"

Authors: Stunnenberg M, van Pul L, Sprokholt JK, van Dort KA, Gringhuis SI, Geijtenbeek TBH, Kootstra NA

Year  
2020

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

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