

# CD279 (PD-1) Monoclonal Antibody (MIH4), Super Bright™ 645, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	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	MIH4
Conjugate	Super Bright™ 645
Excitation/Emission Max	414/645 nm
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_2717119

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (1.0 µg)/test	3 Publications

## Product Specific Information

Description: The MIH4 monoclonal antibody reacts with the human PD-1 (programmed death-1), a 55 kDa member of the immunoglobulin superfamily. PD-1 contains the immunoreceptor tyrosine-based inhibitory motif (ITIM) and plays a key role in peripheral tolerance and autoimmune disease. PD-1 is expressed predominantly on activated T and B lymphocytes. Two novel members of the B7 family have been identified as the PD-1 ligands, PD-L1 (B7-H1) and PD-L2 (B7-DC). Evidence reported to date suggests overlapping functions for these two PD-1 ligands and their constitutive expression on some normal tissues and upregulation on activated antigen-presenting cells. The MIH4 antibody recognizes a different epitope than antibody clones J105.

Applications Reported: This MIH4 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This MIH4 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 (1.0 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.

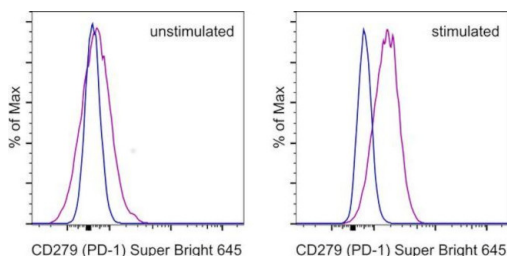
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

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°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 CD279 (PD-1) Monoclonal Antibody (MIH4), Super Bright™ 645, eBioscience™



### CD279 (PD-1) Antibody (64-9969-42) in Flow

Staining of unstimulated (left) or 3-day PHA-stimulated (right) normal human peripheral blood cells with Mouse IgG1 K Isotype Control Super Bright (Product # 64-4714) (blue histogram) or Anti-Human CD279 (PD-1) FITC (Product # 64-9969) (purple histogram). Total viable cells were used for analysis.

[View more figures on thermofisher.com](#)

## 3 References

### Flow Cytometry (3)

#### Biomedicines

#### Imaging Changes and Immune-Checkpoint Expression on T Cells in Bronchoalveolar Lavage Fluid from Patients with Pulmonary Sarcoidosis.

"Published figure using CD279 (PD-1) monoclonal antibody (Product # 64-9969-42) in Flow Cytometry"

Authors: Kotetsu Y, Yanagihara T, Suzuki K, Ando H, Eto D, Hata K, Arimura-Omori M, Yamamoto Y, Harada E, Hamada N

Year  
2021

#### The Journal of cell biology

#### PD-1 and BTLA regulate T cell signaling differentially and only partially through SHP1 and SHP2.

"Published figure using CD279 (PD-1) monoclonal antibody (Product # 64-9969-42) in Flow Cytometry"

Authors: Xu X, Hou B, Fulzele A, Masubuchi T, Zhao Y, Wu Z, Hu Y, Jiang Y, Ma Y, Wang H, Bennett EJ, Fu G, Hui E

Year  
2020

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

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