

# CD279 (PD-1) Monoclonal Antibody (J43), Super Bright™ 780, eBioscience™

Product Details	
Size	100 µg
Species Reactivity	Mouse
Published Species	Mouse
Host/Isotype	Armenian hamster / IgG
Recommended Isotype Control	Armenian Hamster IgG Isotype Control (eBio299Arm), Super Bright™ 780, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	J43
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_2734947

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	0.125 µg/test	24 Publications

## Product Specific Information

Description: The J43 monoclonal antibody reacts with mouse PD-1 (programmed death-1), a 55 kDa member of the Ig superfamily. PD-1 contains the immunoreceptor tyrosine-based inhibitory motif (ITIM) and plays a key role in peripheral tolerance and autoimmune disease in mice. PD-1 is expressed mainly on activated T and B lymphocytes. Two novel B7 Family members have been identified as PD-1 ligands, PD-L1 (B7-H1) and PD-L2 (B7-DC). Evidence reported to date suggests overlapping functions for these ligands and their constitutive expression on some normal tissues and upregulation on activated antigen-presenting cells. It is reported that J43 inhibits the binding of mouse PD-L1-Ig and mouse PD-L2-Ig to PD-1/BHK transfected cells. When administered in vivo, both intact and Fab of J43 are reported to enhance contact hypersensitivity and exacerbate acute GVHD similar to transfer of PD-1-deficient cells. Injection of J43 also exacerbates EAE and NOD diabetes as do specific antibodies to mouse PD-L1 and PD-L2.

Applications Reported: This J43 antibody has been reported for use in flow cytometric analysis.

Applications Tested: This J43 antibody has been tested by flow cytometric analysis of stimulated mouse splenocytes. This can be used at less than or equal to 0.25 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).

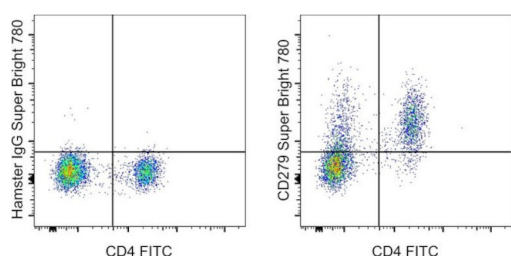
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Protect this vial and stained samples from light.

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 CD279 (PD-1) Monoclonal Antibody (J43), Super Bright™ 780, eBioscience™



### CD279 (PD-1) Antibody (78-9985-82) in Flow

C57BL/6 splenocytes were stimulated for 3 days with plate-bound CD3e Monoclonal Antibody, Functional Grade (Product # 16-0031-82) and soluble CD28 Monoclonal Antibody, Functional Grade (Product # 16-0281-82). The cells were then stained with CD4 Monoclonal Antibody, FITC (Product # 11-0041-82) and 0.125  $\mu$ g of Armenian Hamster IgG Isotype Control, Super Bright 780 (Product # 78-4888-82) (left) or 0.125  $\mu$ g of CD279 Monoclonal Antibody, Super Bright 780 (right). Total viable cells were used for analysis, as determined by Fixable Viability Dye eFluor 780 (Product # 65-0865-18).

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## Flow Cytometry (24)

### Nature communications

#### PRDM1/BLIMP1 induces cancer immune evasion by modulating the USP22-SPI1-PD-L1 axis in hepatocellular carcinoma cells.

"Published figure using CD279 (PD-1) monoclonal antibody (Product # 78-9985-82) in Flow Cytometry"

Authors: Li Q,Zhang L,You W,Xu J,Dai J,Hua D,Zhang R,Yao F,Zhou S,Huang W,Dai Y,Zhang Y,Baheti T,Qian X,Pu L, Xu J,Xia Y,Zhang C,Tang J,Wang X

Year  
2022

### Aging and disease

#### CD4<sup>+</sup> CTLs Act as a Key Effector Population for Allograft Rejection of MSCs in a Donor MHC-II Dependent Manner in Injured Liver.

"Published figure using CD279 (PD-1) monoclonal antibody (Product # 78-9985-82) in Flow Cytometry"

Authors: Shen S,Li Y,Jin M,Fan D,Pan R,Lin A,Chen Y,Xiang L,Zhao RC,Shao J

Year  
2022

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## More applications with references on thermofisher.com

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