

# CD279 (PD-1) Monoclonal Antibody (J43), Brilliant Ultra Violet™ 737, eBioscience™

Product Details	
Size	25 µg
Species Reactivity	Mouse
Host/Isotype	Armenian hamster / IgG
Recommended Isotype Control	Armenian Hamster IgG Isotype Control (eBio299Arm), Brilliant Ultra Violet™ 737, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	J43
Conjugate	Brilliant Ultra Violet™ 737
Excitation/Emission Max	350/740 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_2896061

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

## 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 administrated 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 0.5 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.

Brilliant Ultra Violet™ 737 (BUV737) is a tandem dye that emits at 732 nm and is intended for use on cytometers equipped with an ultraviolet (355 nm) laser. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright, Brilliant Violet™, Brilliant Ultra Violet™, or other polymer dye-conjugated antibodies in a

staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) or Brilliant Stain Buffer (Product # 00-4409) to minimize any non-specific polymer interactions. Please refer to the datasheet for Super Bright Staining Buffer or Brilliant Stain Buffer for more information.

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

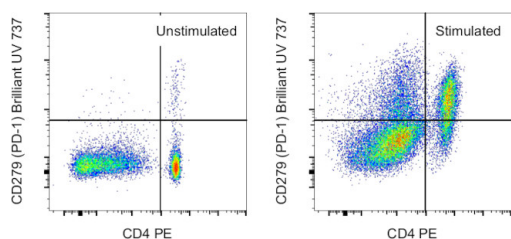
**Fixation:** Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100  $\mu$ L of cell sample + 100  $\mu$ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Our internal testing suggests that Brilliant Ultra Violet™ 737 (BUV737) is compatible with short-term methanol-based fixation, but should not be stored in buffers containing methanol for longer than one hour.

**Excitation:** 355 nm; **Emission:** 732 nm; **Laser:** Ultraviolet Laser.

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## Product Images For CD279 (PD-1) Monoclonal Antibody (J43), Brilliant Ultra Violet™ 737, eBioscience™



### CD279 (PD-1) Antibody (367-9985-80) in Flow

BALB/c 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 CD4 Monoclonal Antibody, PE (Product # 12-0042-82) and 0.25  $\mu$ g of CD279 (PD-1) Monoclonal Antibody, Brilliant Ultra Violet 737 (BUV737). Viable cells in the lymphocyte gate were used for analysis, as determined by 7-AAD (Product # 00-6993-50).

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