

### Anti-Mouse CD279 (PD-1) PE-Cyanine7

Catalog Number: 25-9985 RUO: For Research Use Only. Not for use in diagnostic procedures.



CD279 PE-Cy7

**Product Information** 

 

 Contents: Anti-Mouse CD279 (PD-1) PE-Cyanine7
 Formulation: a azide, may con Temperature L freeze. Light-se is sensitive to p this vial from lig

 REF
 Concentration: 0.2 mg/mL Host/Isotype: Armenian Hamster IgG
 Formulation: a azide, may con temperature L freeze. Light-se is sensitive to p

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer Temperature Limitation: Store at 2-8°C. Do not freeze. Light-sensitive material. This tandem dye is sensitive to photo-induced oxidation. Protect this vial from light during storage, handling & experimental procedures. Batch Code: Refer to vial

Use By: Refer to vial Contains sodium azide

Staining of 3-day Con A-stimulated BALB/c splenocytes

with 0.5 ug of Armenian Hamster IgG Isotype Control PE-Cyanine7 (cat. 25-4888) (blue histogram) or 0.5 ug of Anti-Mouse CD279 (PD-1) PE-Cyanine7 (purple histogram). Total viable cells were used for analysis.

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 flor cytometric analysis of stimulated mouse splenocytes. This can be used at less than or equal to 1  $\mu$ g per test. A test is defined as the amount ( $\mu$ g) of antibody that will stain a cell sample in a final volume of 100  $\mu$ L. 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.

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

Fixation: Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 uL cell sample + 100 uL IC Fixation Buffer) or 1-step Fix/Lyse Solution (cat. 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



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after fixation can be made, but clone specific performance should be determined empirically.

### References

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Salama AD, Chitnis T, Imitola J, Ansari MJ, Akiba H, Tushima F, Azuma M, Yagita H, Sayegh MH, Khoury SJ. Critical role of the programmed death-1 (PD-1) pathway in regulation of experimental autoimmune encephalomyelitis. J Exp Med. 2003 Jul 7;198(1):71-8. (IH/F, FA, PubMed)

Nishimura H, Okazaki T, Tanaka Y, Nakatani K, Hara M, Matsumori A, Sasayama S, Mizoguchi A, Hiai H, Minato N, Honjo T. Autoimmune dilated cardiomyopathy in PD-1 receptor-deficient mice. Science. 2001 Jan 12;291(5502):319-22.

Freeman GJ, Long AJ, Iwai Y, Bourque K, Chernova T, Nishimura H, Fitz LJ, Malenkovich N, Okazaki T, Byrne MC, Horton HF, Fouser L, Carter L, Ling V, Bowman MR, Carreno BM, Collins M, Wood CR, Honjo T. Engagement of the PD-1 immunoinhibitory receptor by a novel B7 family member leads to negative regulation of lymphocyte activation. J Exp Med. 2000 Oct 2;192(7):1027-34.

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Agata Y, Kawasaki A, Nishimura H, Ishida Y, Tsubata T, Yagita H, Honjo T. Expression of the PD-1 antigen on the surface of stimulated mouse T and B lymphocytes. Int Immunol. 1996 May;8(5):765-72.

#### **Related Products**

12-5760 Anti-Mouse Bcl-6 PE (GI191E) 25-4888 Armenian Hamster IgG Isotype Control PE-Cyanine7 (eBio299Arm)

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