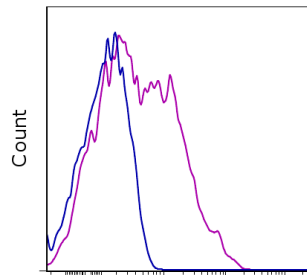


## Anti-Mouse CD279 (PD-1) APC

**Catalog Number:** 17-9985

**RUO: For Research Use Only. Not for use in diagnostic procedures.**



CD279 (PD-1) APC

Staining of 3-day Anti-Mouse CD3 and Anti-Mouse CD28 Functional Grade Purified (cat. 16-0031 and 16-0281)-stimulated C57Bl/6 splenocytes with 0.25  $\mu$ g of Armenian Hamster IgG Isotype Control APC (cat. 17-4888) (blue histogram) or 0.25  $\mu$ g of Anti-Mouse CD279 (PD-1) APC (purple histogram). Total viable cells, as determined by Fixable Viability Dye eFluor<sup>®</sup> 450 (cat. 65-0863), were used for analysis.

### Product Information



**Contents:** Anti-Mouse CD279 (PD-1) APC

**Catalog Number:** 17-9985

**Clone:** J43

**Concentration:** 0.2 mg/mL

**Host/Isotype:** Armenian Hamster IgG



**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.

**Batch Code:** Refer to vial

**Use By:** Refer to vial

**Contains sodium azide**

### 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 0.5  $\mu$ 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  $10^5$  to  $10^8$  cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

### 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)

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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.

Nishimura H, Agata Y, Kawasaki A, Sato M, Imamura S, Minato N, Yagita H, Nakano T, Honjo T. Developmentally regulated expression of the PD-1 protein on the surface of double-negative (CD4-CD8-) thymocytes. *Int Immunol*. 1996 May;8(5):773-80.

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

12-9949 Anti-Mouse/Rat CD278 (ICOS) PE (C398.4A)  
16-0031 Anti-Mouse CD3e Functional Grade Purified (145-2C11)  
16-0281 Anti-Mouse CD28 Functional Grade Purified (37.51)  
17-4888 Armenian Hamster IgG Isotype Control APC (eBio299Arm)  
65-0863 Fixable Viability Dye eFluor® 450

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