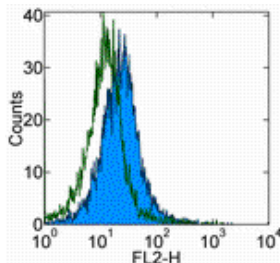


Anti-Mouse CD279 (PD-1) Functional Grade Purified

Catalog Number: 16-9982

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



Staining of 3-day ConA-stimulated BALB/c splenocytes with 0.25 ug of Rat IgG2a K Isotype Control Functional Grade Purified (cat. 16-4321) (open histogram) or 0.25 ug of Anti-Mouse CD279 (PD-1) Functional Grade Purified (filled histogram) followed by Anti-Rat IgG Biotin (cat. 13-4813) and Streptavidin PE (cat. 12-4317). Total viable cells were used for analysis.

Product Information

Contents: Anti-Mouse CD279 (PD-1) Functional Grade Purified

REF **Catalog Number:** 16-9982

Clone: RMP1-14


Concentration: 1 mg/mL

Host/Isotype: Rat IgG2a, kappa

Handling Conditions: Use in sterile environment.

Endotoxin Level: Less than 0.001 ng/ug antibody, as determined by the LAL assay.

Formulation: aqueous buffer, no sodium azide

 **Temperature Limitation:** Store at 2-8°C.

LOT **Batch Code:** Refer to Vial

 **Use By:** Refer to Vial

Description

This 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. Similar to J43, another mAb to mouse PD-1 (Cat. No. 16-9985), RMP1-14 blocks the binding of both B7-H1-Ig and B7-DC-Ig to PD-1 transfectants.

Applications Reported

The RMP1-14 antibody has been reported for use in flow cytometric analysis.

Applications Tested

The RMP1-14 antibody has been tested by flow cytometric analysis of 3 day ConA activated splenocytes. This can be used at less than or equal to 1 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 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

References

- Matsumoto K, Inoue H., et al. 2004. B7-DC regulates asthmatic response by an IFN-gamma-dependent mechanism. *J Immunol.* 172 (4):2530-41
- Aramaki O, Shirasugi N, Takayama T, Shimazu M, Kitajima M, Ikeda Y, Azuma M, Okumura K, Yagita H, Niimi M. 2004. Programmed death-1-programmed death-L1 interaction is essential for induction of regulatory cells by intratracheal delivery of alloantigen. *Transplantation.* Jan 15;77(1):6-12.
- Agata Y, Kawasaki A, Nishimura H, Ishida Y, Tsubata T, Yagita H, Honjo T. 1996. Expression of the PD-1 antigen on the surface of stimulated mouse T and B lymphocytes. *Int Immunol.* May;8(5):765-72.
- Nishimura H, Agata Y, Kawasaki A, Sato M, Imamura S, Minato N, Yagita H, Nakano T, Honjo T. 1996. Developmentally regulated expression of the PD-1 protein on the surface of double-negative (CD4-CD8-) thymocytes. *Int Immunol.* May;8(5):773-80.
- Latchman Y, Wood CR, Chernova T, Chaudhary D, Borde M, Chernova I, Iwai Y, Long AJ, Brown JA, Nunes R, Greenfield EA, Bourque K, Boussiotis VA, Carter LL, Carreno BM, Malenkovich N, Nishimura H, Okazaki T, Honjo T, Sharpe AH, Freeman GJ. 2001. PD-L2 is a second ligand for PD-1 and inhibits T cell activation. *Nat Immunol.* Mar;2(3):261-8.
- Nishimura H, Okazaki T, Tanaka Y, Nakatani K, Hara M, Matsumori A, Sasayama S, Mizoguchi A, Hiai H, Minato N, Honjo T. 2001. Autoimmune dilated cardiomyopathy in PD-1 receptor-deficient mice. *Science.* 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. 2000. 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, Honjo T, Minato N. 2000. Facilitation of beta selection and modification of positive selection in the thymus of PD-1-deficient mice. *J Exp Med.* Mar 6;191(5):891-8.

Nishimura H, Minato N, Nakano T, Honjo T. 1998. Immunological studies on PD-1 deficient mice: implication of PD-1 as a negative regulator for B cell responses. *Int Immunol.* Oct;10(10):1563-72.

Related Products

13-4813 Anti-Rat IgG Biotin (Polyclonal)

16-4321 Rat IgG2a K Isotype Control Functional Grade Purified (eBR2a)

Not for further distribution without written consent.

Copyright © 2000-2010 eBioscience, Inc.

Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • www.eBioscience.com • info@eBioscience.com