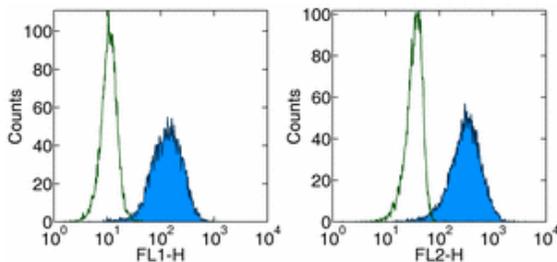


Anti-Human CD279 (PD-1) Purified

Catalog Number: 14-9989

Also Known As: PD1

RUO: For Research Use Only



Staining of human PD-1 transfected cells with anti-human Anti-Human CD279 (PD-1) FITC (left) or PE (right). Appropriate isotype controls were used (open histogram). Total viable cells were used for analysis.

Product Information

Contents: Anti-Human CD279 (PD-1) Purified

REF Catalog Number: 14-9989

Clone: J116

Concentration: 0.5 mg/ml

Host/Isotype: Mouse IgG1, κ

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer

 Temperature Limitation: Store at 2-8°C.

LOT Batch Code: Refer to Vial

 Use By: Refer to Vial

 Caution, contains Azide

Description

The J116 monoclonal antibody reacts with the human PD-1 (programmed death-1), a 55 kDa member of the immunoglobulin superfamily. PD-1 contains the immunoreceptor tyrosine-based inhibitory motif (ITIM) and plays a key role in peripheral tolerance and autoimmune disease. PD-1 is expressed predominantly on activated T and B lymphocytes. Two novel members of the B7 family have been identified as the PD-1 ligands, PD-L1 (B7-H1) and PD-L2 (B7-DC). Evidence reported to date suggests overlapping functions for these two PD-1 ligands and their constitutive expression on some normal tissues and upregulation on activated antigen-presenting cells. Binding of the J116 monoclonal antibody inhibits PD-1 signal transduction, however, it does not block binding of the ligand PD-L1.

Applications Reported

This J116 antibody has been reported for use in immunoprecipitation, immunoblotting (WB), and immunohistology staining of frozen tissue sections. It has also been reported in *in vitro* functional assays. (Please use Functional Grade purified J116, cat. 16-9989, in functional assays.)

Applications Tested

The J116 antibody has been tested by flow cytometric analysis of human PD-1 transfected cells. This can be used at less than or equal to 1 μ g per test. A test is defined as the amount (μ g) of antibody that will stain a cell sample in a final volume of 100 μ 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

Taglauer ES, Trikhacheva AS, Slusser JG, Petroff MG. Expression and function of PDCD1 at the human maternal-fetal interface. *Biol Reprod.* 2008 Sep;79(3):562-9. (J116, IHC frozen, PubMed)

Jurado JO, Alvarez IB, Pasquinelli V, Martínez GJ, Quiroga MF, Abbate E, Musella RM, Chuluyan HE, García VE. Programmed death (PD)-1:PD-ligand 1/PD-ligand 2 pathway inhibits T cell effector functions during human tuberculosis. *J Immunol.* 2008 Jul 1;181(1):116-25. (J116, FA, PubMed)

Ghebeh H, Barhoush E, Tulbah A, Elkum N, Al-Tweigeri T, Dermime S. FOXP3+ Tregs and B7-H1+/PD-1+ T lymphocytes co-infiltrate the tumor tissues of high-risk breast cancer patients: Implication for immunotherapy. *BMC Cancer.* 2008 Feb 23;8:57. (J116, IHC frozen, PubMed)

Chen Y, Zhang J, Li J, Zou L, Zhao T, Tang Y, Wu Y. Expression of B7-H1 in inflammatory renal tubular epithelial cells. *Nephron Exp Nephrol.* 2006;102(3-4):e81-92. (J116, FA, PubMed)

Saudemont A, Jouy N, Hetuin D, Quesnel B. NK cells that are activated by CXCL10 can kill dormant tumor cells that resist CTL-mediated lysis and can express B7-H1 that stimulates T cells. *Blood.* 2005 Mar 15;105(6):2428-35.

Godfrey WR, Spoden DJ, Ge YG, Baker SR, Liu B, Levine BL, June CH, Blazar BR, Porter SB. Cord blood CD4(+)CD25(+)-derived T regulatory cell lines express FoxP3 protein and manifest potent suppressor function. *Blood*. 2005 Jan 15;105(2):750-8. (J116, FA, PubMed)

Hatachi S, Iwai Y, Kawano S, Morinobu S, Kobayashi M, Koshiba M, Saura R, Kurosaka M, Honjo T, Kumagai S. CD4+ PD-1+ T cells accumulate as unique anergic cells in rheumatoid arthritis synovial fluid. *J Rheumatol*. 2003 Jul;30(7):1410-9.

Iwai Y, Okazaki T, Nishimura H, Kawasaki A, Yagita H, Honjo T. Microanatomical localization of PD-1 in human tonsils. *Immunol Lett*. 2002 Oct 1;83(3):215-20.

Dong H, Strome SE, Salomao DR, Tamura H, Hirano F, Flies DB, Roche PC, Lu J, Zhu G, Tamada K, Lennon VA, Celis E, Chen L. Tumor-associated B7-H1 promotes T-cell apoptosis: a potential mechanism of immune evasion. *Nat Med*. 2002 Aug;8(8):793-800. Epub 2002 Jun 24. Erratum in: *Nat Med* 2002 Sep;8(9):1039. (J116, FC, PubMed)

Latchman Y, Wood CR, Chernova T, Chaudhary D, Borde M, Chernova I, Iwai Y, Long AJ, Brown JA, Nunes R, Greenfield EA, Bourque K, Bousiotis VA, Carter LL, Carreno BM, Malenkovich N, Nishimura H, Okazaki T, Honjo T, Sharpe AH, Freeman GJ. PD-L2 is a second ligand for PD-1 and inhibits T cell activation. *Nat Immunol*. 2001 Mar;2(3):261-8.

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.

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.

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.

Related Products

11-4011 Anti-Mouse IgG FITC

11-4317 Streptavidin FITC

12-4317 Streptavidin PE

13-4013 Anti-Mouse IgG Biotin (Polyclonal)

14-4714 Mouse IgG1 K Isotype Control Purified

17-4317 Streptavidin APC

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