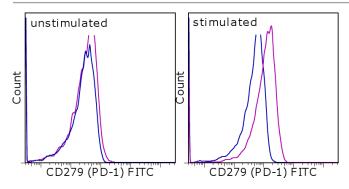


An Affymetrix Company

# **Anti-Human CD279 (PD-1) FITC**

Catalog Number: 11-9969

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



Staining of unstimulated (left) or 3-day PHAstimulated (right) normal human peripheral blood cells with Mouse IgG1 K Isotype Control FITC (cat. 11-4714) (blue histogram) or Anti-Human CD279 (PD-1) FITC (purple histogram). Total viable cells were used for analysis.

### **Product Information**

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

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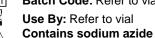
Clone: MIH4

Concentration: 5 uL (2.0 ug)/test Host/Isotype: Mouse IgG1, kappa



**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





## Description

The MIH4 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. The MIH4 antibody recognizes a different epitope than antibody clones J105.

# **Applications Reported**

This MIH4 antibody has been reported for use in flow cytometric analysis.

#### **Applications Tested**

This MIH4 antibody has been pre-titrated and tested by flow cytometric analysis of PHA-stimulated normal human peripheral blood mononuclear cells. This can be used at 5  $\mu$ L (2.0  $\mu$ 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.

#### References

Zhang JY, Zhang Z, Wang X, Fu JL, Yao J, Jiao Y, Chen L, Zhang H, Wei J, Jin L, Shi M, Gao GF, Wu H, Wang FS. PD-1 up-regulation is correlated with HIV-specific memory CD8+ T-cell exhaustion in typical progressors but not in long-term nonprogressors.Blood. 2007 Jun 1;109(11):4671-8. (**MIH4**, FC, PubMed)

Thompson RH, Dong H, Lohse CM, Leibovich BC, Blute ML, Cheville JC, Kwon ED. PD-1 is expressed by tumor-infiltrating immune cells and is associated with poor outcome for patients with renal cell carcinoma. Clin Cancer Res. 2007 Mar 15;13(6):1757-61. (MIH4, IHC frozen)

Kanai T, Totsuka T, Uraushihara K, Makita S, Nakamura T, Koganei K, Fukushima T, Akiba H, Yagita H, Okumura K, Machida U, Iwai H, Azuma M, Chen L, Watanabe M. Blockade of B7-H1 suppresses the development of chronic

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intestinal inflammation. J Immunol. 2003 Oct 15;171(8):4156-63. (MIH4, IHC frozen)

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.

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. PD-L2 is a second ligand for PD-I 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.

Nishimura, H., Y. Agata, et al. (1996). Developmentally regulated expression of the PD-1 protein on the surface of double-negative (CD4-CD8-) thymocytes. Int Immunol 8(5): 773-80.

Agata, Y., A. Kawasaki, et al. (1996). Expression of the PD-1 antigen on the surface of stimulated mouse T and B lymphocytes. Int Immunol 8(5): 765-72.

# **Related Products**

00-4222 Flow Cytometry Staining Buffer 11-4714 Mouse IgG1 K Isotype Control FITC (P3.6.2.8.1) 46-9880 Anti-Human Bcl-6 PerCP-eFluor® 710 (BCL-UP)

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