

## Monoclonal Antibody to CD279 / PD1 - FITC

<b>Alternate names:</b>	PDCD1, Programmed cell death protein 1, Protein PD-1, hPD-1
<b>Catalog No.:</b>	AM05614FC-N
<b>Quantity:</b>	0.1 mg
<b>Concentration:</b>	0,1 mg/ml
<b>Background:</b>	CD279 is 50-55kD membrane protein which is a member of the CD28 family, and functions mainly as a negative regulator of T-cell activation. CD279 has two specific ligands; CD274 (PD-L1) and CD273 (PD-L2), and their interaction is key in the balance between stimulatory and inhibitory signals needed for effective immune responses to microbes and self-tolerance. CD279 is inducibly expressed by T-cells, B-cells, NK-T-cells and monocytes upon activation. Loss of CD279 function has been associated with a number of autoimmune diseases, including rheumatoid arthritis, type I diabetes and ankylosing spondylitis. Recent studies suggest that CD279 could be targeted therapeutically in the treatment of HIV infection to reduce T-cell exhaustion.
<b>Uniprot ID:</b>	<a href="#">Q15116</a>
<b>NCBI:</b>	<a href="#">NP_005009.2</a>
<b>GeneID:</b>	<a href="#">5133</a>
<b>Host / Isotype:</b>	Mouse / IgG1
<b>Clone:</b>	MIH4
<b>Immunogen:</b>	Human CD279 - transfected L cells.
<b>Format:</b>	<b>State:</b> Liquid purified IgG <b>Purification:</b> Affinity chromatography on Protein G <b>Buffer System:</b> Phosphate buffered saline pH7.4 containing 0.09% Sodium Azide (NaN <sub>3</sub> ) and 1% Bovine Serum Albumin <b>Label:</b> FITC – Fluorescein Isothiocyanate Isomer 1
<b>Applications:</b>	Flow Cytometry: 1/10. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Specificity:</b>	This antibody detects CD279, a co-stimulatory molecule also known as programmed cell death-1 (PD-1). <b>Species:</b> Human. Other species not tested.
<b>Storage:</b>	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. This product is photosensitive and should be protected from light. Shelf life: one year from despatch.

**For research and in vitro use only. Not for diagnostic or therapeutic work.**  
Material Safety Datasheets are available at [www.acris-antibodies.com](http://www.acris-antibodies.com) or on request.

Antibody Hotline - Technical Questions - Antibody Location Service  
Free Call: 0800-2274746 (Germany only) - [www.acris-antibodies.com](http://www.acris-antibodies.com)



**Caution:** (A full Health and Safety assessment is available upon request) This product contains Sodium Azide: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.

**General Readings:**

1. Kanai T, Totsuka T, Uraushihara K, Makita S, Nakamura T, Koganei K, et al. Blockade of B7-H1 suppresses the development of chronic intestinal inflammation. *J Immunol.* 2003 Oct 15;171(8):4156-63. PubMed PMID: 14530338.
2. Freeman GJ, Wherry EJ, Ahmed R, Sharpe AH. Reinvigorating exhausted HIV-specific T cells via PD-1-PD-1 ligand blockade. *J Exp Med.* 2006 Oct 2;203(10):2223-7. Epub 2006 Sep 25. PubMed PMID: 17000870.
3. Keir, M.E. et al. (2007) PD-1 and its ligands in T-cell immunity. *Curr. Opin. Immunol.* 19: 309 - 314.

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