

Datasheet: MCA2628PE

Description:	MOUSE ANTI HUMAN CD279:RPE
Specificity:	CD279
Other names:	PD-1
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	MIH4
Isotype:	IgG1
Quantity:	100 TESTS

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			Neat

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human		
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 1.0ml distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide (NaN ₃)		
Stabilisers	1% Bovine Serum Albumin		
	5% Sucrose		
Immunogen	Human CD279 - transfected L cells.		
External Database Links	UniProt:		
	Q15116	Related reagents	

Entrez Gene:

[5133](#) PDCD1 [Related reagents](#)

Synonyms	PD1
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Fusion Partners	Spleen cells from immunised C3H mice were fused with cells of the P3U1 myeloma cell line.
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Specificity	<p>Mouse anti Human CD279 antibody, clone MIH4 detects CD279, a co-stimulatory molecule also known as programmed cell death-1 (PD-1). CD279 is a ~50-55 kDa 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.</p> <p>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.</p>
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Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.
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References	1. Kanai, T. <i>et al.</i> (2003) Blockade of B7-H1 suppresses the development of chronic intestinal inflammation. J Immunol. 171 (8): 4156-63.
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Further Reading	1. Freeman, G.J. <i>et al.</i> (2006) Reinvigorating exhausted HIV-specific T cells via PD-1-PD-1 ligand blockade. J Exp Med. 203 (10): 2223-7. 2. Keir, M.E. <i>et al.</i> (2007) PD-1 and its ligands in T-cell immunity. Curr Opin Immunol. 19 (3): 309-14.
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Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
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Shelf Life	18 months from date of reconstitution
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Health And Safety Information	Material Safety Datasheet documentation #10075 available at: 10075: https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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