

## FITC anti-human CD279 (PD-1) Antibody

<b>Catalog# / Size</b>	329903 / 25 tests 329904 / 100 tests
<b>Clone</b>	EH12.2H7
<b>Regulatory Status</b>	RUO
<b>Other Names</b>	PD-1
<b>Isotype</b>	Mouse IgG1, κ
<b>Description</b>	Programmed cell death 1 (PD-1), also known as CD279, is a 55 kD member of the immunoglobulin superfamily. CD279 contains the immunoreceptor tyrosine-based inhibitory motif (ITIM) in the cytoplasmic region and plays a key role in peripheral tolerance and autoimmune disease. CD279 is expressed predominantly on activated T cells, B cells, and myeloid cells. PD-L1 (B7-H1) and PD-L2 (B7-DC) are ligands of CD279 (PD-1) and are members of the B7 gene family. Evidence suggests overlapping functions for these two PD-1 ligands and their constitutive expression on some normal tissues and upregulation on activated antigen-presenting cells. Interaction of CD279 ligands results in inhibition of T cell proliferation and cytokine secretion.

### Product Details

<b>Verified Reactivity</b>	Human
<b>Reported Reactivity</b>	African Green, Baboon, Chimpanzee, Common Marmoset, Cynomolgus, Rhesus, Squirrel Monkey
<b>Antibody Type</b>	Monoclonal
<b>Host Species</b>	Mouse
<b>Formulation</b>	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
<b>Preparation</b>	The antibody was purified by affinity chromatography, and conjugated with FITC under optimal conditions.
<b>Concentration</b>	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our <a href="#">Concentration and Expiration Lookup</a> or <a href="#">Certificate of Analysis</a> online tools.)
<b>Storage &amp; Handling</b>	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. <b>Do not freeze.</b>
<b>Application</b>	<a href="#">FC - Quality tested</a>
<b>Recommended Usage</b>	Each lot of this antibody is quality control tested by <a href="#">immunofluorescent staining with flow cytometric analysis</a> . For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood.
<b>Excitation Laser</b>	Blue Laser (488 nm)
<b>Application Notes</b>	Additional reported applications (for the relevant formats) include: blocking of ligand binding <sup>1-3</sup> , immunohistochemical staining of paraformaldehyde fixed frozen sections <sup>13</sup> , and spatial biology (IBEX) <sup>15,16</sup> . The LEAF™ purified antibody (Endotoxin <0.1 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. No. 329911 and 329912). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 329926) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/µg).
<b>Application References</b>	<ol style="list-style-type: none"> <li>1. Dorfman DM, <i>et al.</i> 2006 <i>Am. J. Surg. Pathol.</i> 30:802. (FA)</li> <li>2. Radziejewicz H, <i>et al.</i> 2007. <i>J. Virol.</i> 81:2545. (FA)</li> <li>3. Velu V, <i>et al.</i> 2007. <i>J. Virol.</i> 81:5819. (FA)</li> <li>4. Zahn RC, <i>et al.</i> 2008. <i>J. Virol.</i> 82:11577. <a href="#">PubMed</a></li> <li>5. Chang WS, <i>et al.</i> 2008. <i>J. Immunol.</i> 181:6707. (FC) <a href="#">PubMed</a></li> <li>6. Nakamoto N, <i>et al.</i> 2009. <i>PLoS Pathog.</i> 5:e1000313. (FA)</li> <li>7. Jones RB, <i>et al.</i> 2009. <i>J. Virol.</i> 83:8722. (FC) <a href="#">PubMed</a></li> <li>8. Vojnov L, <i>et al.</i> 2010. <i>J. Virol.</i> 84:753. (FC) <a href="#">PubMed</a></li> </ol>
<b>(PubMed link indicates BioLegend citation)</b>	

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## RRID

AB\_940477 (BioLegend Cat. No. 329903)  
 AB\_940479 (BioLegend Cat. No. 329904)

## Antigen Details

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<b>Structure</b>	Immunoglobulin superfamily
<b>Distribution</b>	Transiently expressed on CD4 <sup>+</sup> CD8 <sup>+</sup> thymocytes; upregulated in thymocytes and splenic T and B lymphocytes; expressed on activated myeloid cells
<b>Ligand/Receptor</b>	B7-H1 (also known as PD-L1) and B7-DC (PD-L2)
<b>Cell Type</b>	B cells, Lymphocytes, T cells, Thymocytes, Tregs
<b>Biology Area</b>	Cancer Biomarkers, Immunology, Inhibitory Molecules
<b>Molecular Family</b>	CD Molecules, Immune Checkpoint Receptors
<b>Gene ID</b>	<a href="#">5133</a>

## Related Protocols

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[Cell Surface Flow Cytometry Staining Protocol](#)

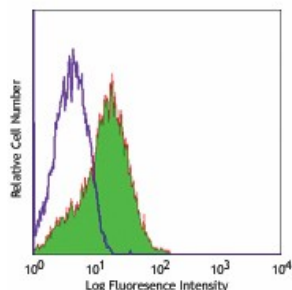
## Other Formats

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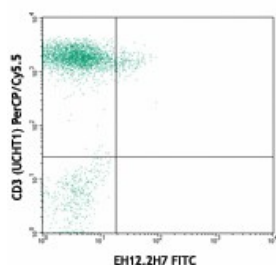
Brilliant Violet 421™ anti-human CD279 (PD-1), Purified anti-human CD279 (PD-1), FITC anti-human CD279 (PD-1), PE anti-human CD279 (PD-1), APC anti-human CD279 (PD-1), Alexa Fluor® 647 anti-human CD279 (PD-1), PerCP/Cyanine5.5 anti-human CD279

(PD-1), APC/Cyanine7 anti-human CD279 (PD-1), Pacific Blue™ anti-human CD279 (PD-1), PE/Cyanine7 anti-human CD279 (PD-1), Purified anti-human CD279 (PD-1) (Maxpar® Ready), Brilliant Violet 605™ anti-human CD279 (PD-1), Ultra-LEAF™ Purified anti-human CD279 (PD-1), Brilliant Violet 711™ anti-human CD279 (PD-1), Brilliant Violet 785™ anti-human CD279 (PD-1), Brilliant Violet 510™ anti-human CD279 (PD-1), Biotin anti-human CD279 (PD-1), PE/Dazzle™ 594 anti-human CD279 (PD-1), Alexa Fluor® 488 anti-human CD279 (PD-1), PerCP anti-human CD279 (PD-1), GolnVivo™ Purified anti-human CD279 (PD-1), Brilliant Violet 650™ anti-human CD279 (PD-1), Alexa Fluor® 700 anti-human CD279 (PD-1), APC/Fire™ 750 anti-human CD279 (PD-1), TotalSeq™-A0088 anti-human CD279 (PD-1), TotalSeq™-B0088 anti-human CD279 (PD-1), TotalSeq™-C0088 anti-human CD279 (PD-1), Brilliant Violet 750™ anti-human CD279 (PD-1), TotalSeq™-D0088 anti-human CD279 (PD-1), PE/Fire™ 640 anti-human CD279 (PD-1), PE/Cyanine5 anti-human CD279 (PD-1)

## Product Data



PHA-stimulated (day-3) human peripheral blood lymphocytes were stained with CD279 (clone EH12.2H7) FITC (filled histogram) or mouse IgG1, κ FITC (open histogram).



Human peripheral blood lymphocytes were stained with CD279 (clone EH12.2H7) FITC and CD3 (clone UCHT1) PerCP/Cy5.5.

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