

Alexa Fluor[®] 700 anti-human CD279 (PD-1) Antibody

Catalog# / Size	329951 / 25 tests 329952 / 100 tests
Clone	EH12.2H7
Regulatory Status	RUO
Other Names	PD-1
Isotype	Mouse IgG1, κ
Description	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

Verified Reactivity	Human
Reported Reactivity	African Green, Baboon, Chimpanzee, Common Marmoset, Cynomolgus, Rhesus, Squirrel Monkey
Antibody Type	Monoclonal
Host Species	Mouse
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor [®] 700 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. Do not freeze.
Application	FC - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis . For flow cytometric staining, the suggested use of this reagent is 5 μ l per million cells in 100 μ l staining volume or 5 μ l per 100 μ l of whole blood. * Alexa Fluor [®] 700 has a maximum emission of 719 nm when it is excited at 633 nm / 635 nm. Prior to using Alexa Fluor [®] 700 conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome. Alexa Fluor [®] and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Red Laser (633 nm)
Application Notes	Additional reported applications (for the relevant formats) include: blocking of ligand binding ¹⁻³ , immunohistochemical staining of paraformaldehyde fixed frozen sections ¹³ , and spatial biology (IBEX) ^{15,16} . The LEAF™ purified antibody (Endotoxin <0.1 EU/ μ g, Azide-Free, 0.2 μ m 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/ μ g).
Application References	

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4. Zahn RC, *et al.* 2008. *J. Virol.* 82:11577. [PubMed](#)
5. Chang WS, *et al.* 2008. *J. Immunol.* 181:6707. (FC) [PubMed](#)
6. Nakamoto N, *et al.* 2009. *PLoS Pathog.* 5:e1000313. (FA)
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10. Montero P, *et al.* 2011. *J. Immunol.* 186:4618. [PubMed](#)
11. Conrad J, *et al.* 2011. *J. Immunol.* 186:6871. [PubMed](#)
12. Salisch NC, *et al.* 2010. *J. Immunol.* 184:476. (Rhesus reactivity)
13. Li H and Pauza CD. 2015. *Eur. J. Immunol.* 45:298. (IHC)
14. Peterson VM, *et al.* 2017. *Nat. Biotechnol.* 35:936. (PG)
15. Radtke AJ, *et al.* 2020. *Proc Natl Acad Sci USA.* 117:33455-33465. (SB) [PubMed](#)
16. Radtke AJ, *et al.* 2022. *Nat Protoc.* 17:378-401. (SB) [PubMed](#)

Product Citations

1. Ford BD, *et al.* 2021. *Int J Mol Sci.* 22:. [PubMed](#)

RRID

AB_2566363 (BioLegend Cat. No. 329951)
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Antigen Details

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

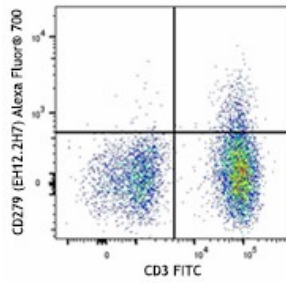
Related Protocols

[Cell Surface Flow Cytometry Staining Protocol](#)

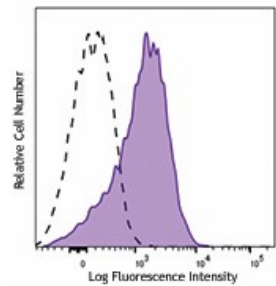
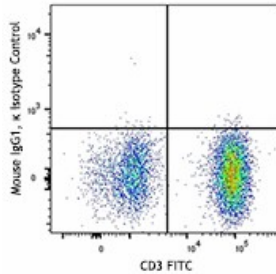
Other Formats

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), GoInVivo™ 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



Human peripheral blood lymphocytes were stained with CD3 FITC and CD279 (clone EH12.2H7) Alexa Fluor® 700 (top) or mouse IgG1, κ Alexa Fluor® 700 isotype control (bottom).



PHA-stimulated (three days) human peripheral blood lymphocytes were stained with CD279 (clone EH12.2H7) Alexa Fluor® 700 (filled histogram) or mouse IgG1, κ Alexa Fluor® 700 (open histogram).

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