

PE/Fire™ 700 anti-human CD279 (PD-1) Antibody

Catalog# / Size	329985 / 25 tests 329986 / 100 tests
Clone	EH12.2H7
Regulatory Status	RUO
Other Names	PD-1, PDCD1
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 PE/Fire™ 700 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration and expiration, please enter the lot number in our Certificate of Analysis online tool).
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 µL per million cells in 100 µL staining volume or 5 µL per 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application. * PE/Fire™ 700 has a maximum excitation of 565 nm and a maximum emission of 695 nm.
Excitation Laser	Blue Laser (488 nm) Green Laser (532 nm)/Yellow-Green Laser (561 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/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).

Application References

(PubMed link indicates
BioLegend citation)

1. Dorfman DM, *et al.* 2006 *Am. J. Surg. Pathol.* 30:802. (FA)
2. Radziejewicz H, *et al.* 2007. *J. Virol.* 81:2545. (FA)
3. Velu V, *et al.* 2007. *J. Virol.* 81:5819. (FA)
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)
7. Jones RB, *et al.* 2009. *J. Virol.* 83:8722. (FC) [PubMed](#)
8. Vojnov L, *et al.* 2010. *J. Virol.* 84:753. (FC) [PubMed](#)
9. Radziejewicz H, *et al.* 2010. *J. Immunol.* 184:2410. (FC) [PubMed](#)
10. Monteriro 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)

[See More](#)

RRID

AB_3717218 (BioLegend Cat. No. 329985)
AB_3717218 (BioLegend Cat. No. 329986)

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

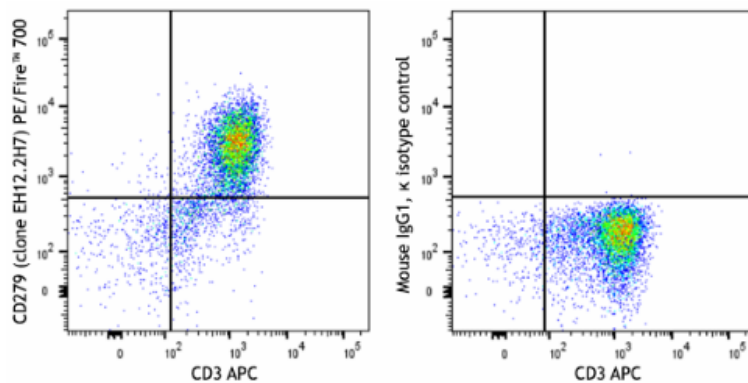
Related Protocols

- [Cell Surface Flow Cytometry Staining Protocol](#)

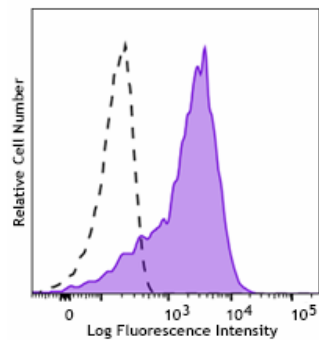
Other Formats

PE/Fire™ 640 anti-human CD279 (PD-1), PE/Cyanine5 anti-human CD279 (PD-1), TotalSeq™-D0088 anti-human CD279 (PD-1), PE/Fire™ 744 anti-human CD279 (PD-1), Purified anti-human CD279 (PD-1) (Maxpar® Ready), Alexa Fluor® 700 anti-human CD279 (PD-1), Brilliant Violet 650™ anti-human CD279 (PD-1), APC/Fire™ 750 anti-human CD279 (PD-1), GoInVivo™ Purified anti-human CD279 (PD-1), PerCP/Cyanine5.5 anti-human CD279 (PD-1), APC/Cyanine7 anti-human CD279 (PD-1), Brilliant Violet 421™ anti-human CD279 (PD-1), Brilliant Violet 711™ anti-human CD279 (PD-1), Brilliant Violet 605™ anti-human CD279 (PD-1), Brilliant Violet 785™ anti-human CD279 (PD-1), PerCP anti-human CD279 (PD-1), PE/Dazzle™ 594 anti-human CD279 (PD-1), Spark NIR™ 685 anti-human CD279 (PD-1) Antibody, Spark PLUS B550™ anti-human CD279 (PD-1) Antibody, Spark YG™ 581 anti-human CD279 (PD-1) (Flexi-Fluor™), Spark YG™ 593 anti-human CD279 (PD-1) (Flexi-Fluor™) Antibody, StarBright UltraViolet 740 anti-human CD279 (PD-1), Purified anti-human CD279 (PD-1), PE 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), Brilliant Violet 510™ anti-human CD279 (PD-1), Biotin anti-human CD279 (PD-1), Brilliant Violet 570™ anti-human CD279 (PD-1), Spark PLUS UV395™ anti-human CD279 (PD-1) (Flexi-Fluor™), FITC anti-human CD279 (PD-1), Pacific Blue™ anti-human CD279 (PD-1), PE/Cyanine7 anti-human CD279 (PD-1), Ultra-LEAF™ Purified anti-human CD279 (PD-1), Alexa Fluor® 488 anti-human CD279 (PD-1), Spark Red™ 718 anti-human CD279 (PD-1), PE/Fire™ 700 anti-human CD279 (PD-1) Antibody, APC anti-human CD279 (PD-1), Alexa Fluor® 647 anti-human CD279 (PD-1), TotalSeq™-A0088 anti-human CD279 (PD-1)

Product Data



PHA-stimulated (3 days) human peripheral blood lymphocytes were stained with anti-human CD3 (clone UCHT1) APC and anti-human CD279 (PD-1) (clone EH12.2H7) PE/Fire™ 700 (left) or mouse IgG1, κ PE/Fire™ 700 isotype control (right).



PHA-stimulated (3 days) human peripheral blood lymphocytes were stained with anti-human CD279 (PD-1) (clone EH12.2H7) PE/Fire™ 700 (filled histogram), or mouse IgG1, κ PE/Fire™ 700 (open histogram).

For Research Use Only. Not for diagnostic or therapeutic use.

This product is supplied subject to the terms and conditions, including the limited license, located at www.biolegend.com/terms ("Terms") and may be used only as provided in the Terms. Without limiting the foregoing, BioLegend products may not be used for any Commercial Purpose as defined in the Terms, resold in any form, used in manufacturing, or reverse engineered, sequenced, or otherwise studied or used to learn its design or composition without express written approval of BioLegend. Regardless of the information given in this document, user is solely responsible for determining any license requirements necessary for user's intended use and assumes all risk and liability arising from use of the product. BioLegend is not responsible for patent infringement or any other risks or liabilities whatsoever resulting from the use of its products.

BioLegend, the BioLegend logo, and all other trademarks are property of BioLegend, Inc. or their respective owners, and all rights are reserved.

8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587