Brilliant Violet 570™ anti-human CD279 (PD-1) Antibody

Catalog# / Size	329977 / 25 tests 329978 / 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 Brilliant Violet 570™ 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. Brilliant Violet 570™ excites at 405 nm and emits at 570 nm. The bandpass filter 585/42 nm is recommended for detection, although filter optimization may be required depending on other fluorophores used. Be sure to verify that your cytometer configuration and software setup are appropriate for detecting this channel. Refer to your instrument manual or manufacturer for support. Brilliant Violet 570™ is a trademark of Sirigen Group Ltd. Learn more about Brilliant Violet™. This product is subject to proprietary rights of Sirigen Inc. and is made and sold under license from Sirigen Inc. The purchase of this product conveys to the buyer a non-transferable right to use the purchased product for research purposes only. This product may not be resold or

incorporated in any manner into another product for resale. Any use for therapeutics or diagnostics is strictly prohibited. This product is covered by U.S. Patent(s), pending patent applications and foreign equivalents.

Excitation Laser	Violet Laser (405 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. Radziewicz 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. Radziewicz 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_3662226 (BioLegend Cat. No. 329977) AB_3662226 (BioLegend Cat. No. 329978)

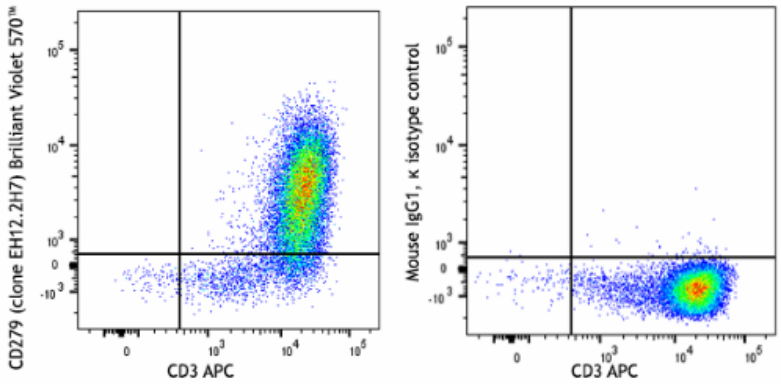
Antigen Details

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

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), PE/Fire™ 744 anti-human CD279 (PD-1), Spark Red™ 718 anti-human CD279 (PD-1), Brilliant Violet 570™ 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

Product Data



PHA-stimulated (3 days) human peripheral blood mononuclear cells were stained with anti-human CD3 (clone UCHT1) APC and anti-human CD279 (PD-1) (clone EH12.2H7) Brilliant Violet 570™ (left) or mouse IgG1, κ Brilliant Violet 570™ isotype control (right). Data shown were gated on the lymphocyte population.

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