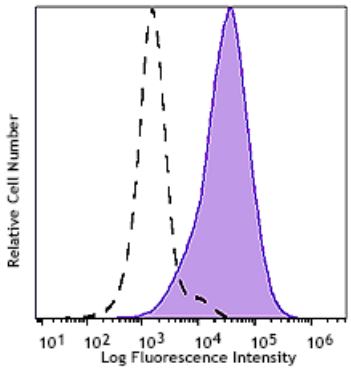
SONY

Product Data Sheet

PE/Fire™ 640 anti-human CD279 (PD-1)

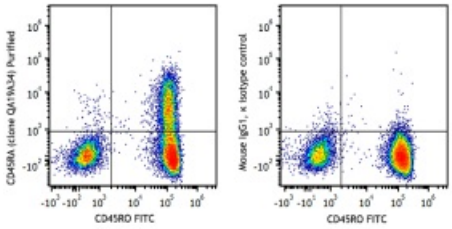
Catalog # / Size:	2249840 / 100 tests 2249835 / 25 tests
Clone:	EH12.2H7
Isotype:	Mouse IgG1, κ
Immunogen:	Human PMN cells
Reactivity:	Human, Non-human primate, Other
Preparation:	The antibody was purified by affinity chromatography and conjugated with PE/Fire™ 640 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Workshop Number:	750 under optimal conditions.
Concentration:	Lot-specific



PHA stimulated (day 3) human peripheral blood lymphocytes were stained with anti-human CD279 (PD-1) PE/Fire™ 640 (clone EH12.2H7) (filled histogram), or mouse IgG1, κ PE/Fire™ 640 (open histogram).

Applications:

Applications:	Flow Cytometry
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™ 640 has a maximum excitation of 566 nm and a maximum emission of 639 nm.



Human peripheral blood lymphocytes were stained with anti-human CD3 FITC and anti-human CD279 (PD-1) PE/Fire™ 640 (clone EH12.2H7) (left), or mouse IgG1, κ PE/Fire™ 640 (right).

For research use only. Not for diagnostic use. Not for resale. Sony Biotechnology Inc. will not be held responsible for patent infringement or other violations that may occur with the use of our products.
Sony Biotechnology Inc. 1730 North First Street, San Jose, CA 95112 www.sonybiotechnology.com

Application Notes: Additional reported applications (for the relevant formats) include: blocking of ligand binding[1 - 3] and immunohistochemical staining of paraformaldehyde fixed frozen sections[13]. 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:

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)
13. Li H and Pauza CD. 2015. *Eur. J. Immunol.* 45:298. (IHC)
14. Peterson VM, *et al.* 2017. *Nat. Biotechnol.* 35:936. (PG)

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.

Antigen References:

1. Miao WM, *et al.* 2001 *Blood* 97:1689.
2. Ellerman DA, *et al.* 2003 *Mol. Biol Cell.* (Epub ahead of print).
3. Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.

For research use only. Not for diagnostic use. Not for resale. Sony Biotechnology Inc. will not be held responsible for patent infringement or other violations that may occur with the use of our products.