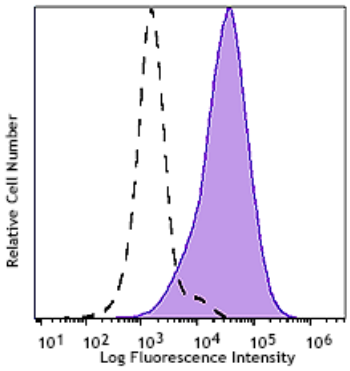
SONY

Product Data Sheet

PE/Fire™ 640 anti-human CD279 (PD-1)

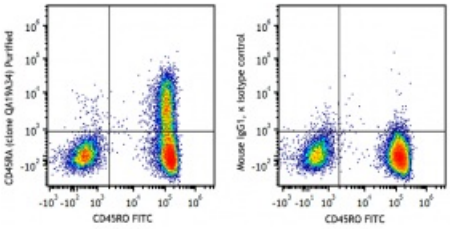
Catalog # / Size:	2249835 / 25 tests 2249840 / 100 tests
Clone:	EH12.2H7
Isotype:	Mouse IgG1, κ
Reactivity:	Human, Non-human primate, Other
Preparation:	The antibody was purified by affinity chromatography and conjugated with PE/Fire™ 640 under optimal conditions.
Formulation:	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA)
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).

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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.