## Alexa Fluor® 647 anti-human CD279 (PD-1)

Catalog # / Size: 2249550 / 100 tests

> Clone: EH12.2H7 Isotype: Mouse IgG1, κ

Reactivity: Human

**Preparation:** The antibody was purified by affinity

> chromatography, and conjugated with Alexa Fluor® 647 under optimal

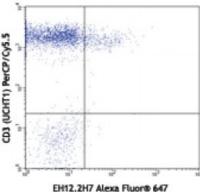
conditions.

Phosphate-buffered solution, pH 7.2, Formulation:

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 CD279 (clone EH12.2H7) Alexa Fluor® 647 (filled histogram) or mouse IgG1, κ Alexa Fluor® 647 (open histogram).

## **Applications:**

**Applications:** Flow Cytometry

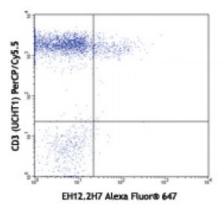
Recommended **Usage:** 

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 microL per million cells or 5 microL per 100 microL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

\* Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633nm / 635nm.

**Application** Notes:

Additional reported applications (for the relevant formats) include: blocking of binding<sup>1</sup>  $^{3}$  and ligand immunohistochemical staining of paraformaldehyde fixed frozen sections<sup>13</sup>. The LEAF<sup>™</sup> purified antibody (Endotoxin < 0.1 EU/µg, Azide-Free, 0.2 filtered) is recommended for functional assays (Cat. No. 329911 and 329912). For highly sensitive assays, we recommend Ultra-LEAF™ antibody (Cat. No. 329926) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin < 0.01 EU/microg).



Human peripheral blood lymphocytes were stained with CD279 (clone EH12.2H7) Alexa Fluor® 647 and CD3 (clone UCHT1) PerCP/Cv5.5.

## 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) <u>PubMed</u> 9. Radziewicz H, *et al.* 2010. *J. Immunol.* 184:2410. (FC) <u>PubMed</u>
- 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)

## **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.