

**Pacific Blue™ anti-human CD279 (PD-1)**

**Catalog # / Size:** 2249580 / 100 µg  
2249575 / 25 µg

**Clone:** EH12.2H7

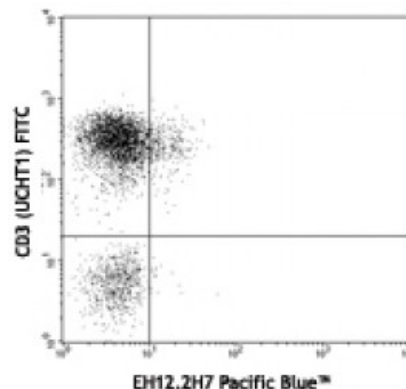
**Isotype:** Mouse IgG1, κ

**Reactivity:** Human

**Preparation:** The antibody was purified by affinity chromatography, and conjugated with Pacific Blue™ under optimal conditions. The solution is free of unconjugated Pacific Blue™.

**Formulation:** Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.

**Concentration:** 0.5

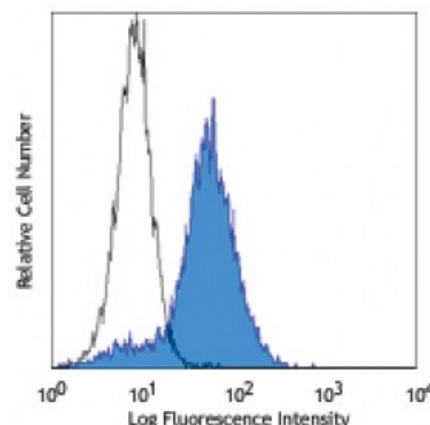


Human peripheral blood lymphocytes were stained with CD279 (clone EH12.2H7) Pacific Blue™ and CD3 (clone UCHT1) FITC.

**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 ≤ 1.0µg per 10<sup>6</sup> cells in 100 µL volume or 100 µL of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.



PHA-stimulated (day-3) human peripheral blood lymphocytes were stained with CD279 (clone EH12.2H7) Pacific Blue™ (filled histogram) or mouse IgG1, κ Pacific Blue™ (open histogram).

\* Pacific Blue™ has a maximum emission of 455 nm when it is excited at 405 nm. Prior to using Pacific Blue™ conjugate for flow cytometric analysis, please verify your flow cytometer's capability of exciting and detecting the fluorochrome.

**Application Notes:** Additional reported applications (for the relevant formats) include: blocking of ligand binding<sup>1-3</sup> and immunohistochemical staining of paraformaldehyde fixed frozen sections<sup>13</sup>. 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/microg).

**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)
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  5. Chang WS, *et al.* 2008. *J. Immunol.* 181:6707. (FC) [PubMed](#)
  6. Nakamoto N, *et al.* 2009. *PLoS Pathog.* 5:e1000313. (FA)
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  10. Montero P, *et al.* 2011. *J. Immunol.* 186:4618. [PubMed](#)
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  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)
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**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.