## **Product Data Sheet**

#### Brilliant Violet 421™ anti-human CD279 (PD-1)

Catalog # / Size: 2249600 / 100 tests

2249595 / 25 tests

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

Reactivity: Human

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

chromatography and conjugated with Brilliant Violet 421<sup>™</sup> under optimal conditions. The solution is free of unconjugated Brilliant Violet 421<sup>™</sup> and

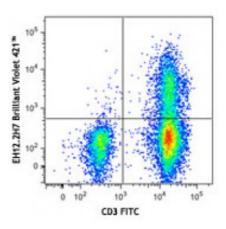
unconjugated antibody.

**Formulation:** Phosphate-buffered solution, pH 7.2,

containing 0.09% sodium azide and BSA

(origin USA).

Concentration: Lot-specific



Human peripheral blood lymphocytes were stained with CD3 FITC and CD279 (clone EH12.2H7) Brilliant Violet 421™ (top) or mouse lgG1, κ Brilliant Violet 421™ isotype control (bottom).

### **Applications:**

**Applications:** Flow Cytometry

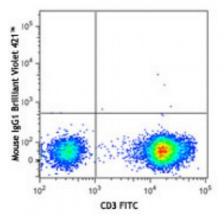
Recommended

**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.

Brilliant Violet 421™ excites at 405 nm and emits at 421 nm. The standard bandpass filter 450/50 nm is recommended for detection. Brilliant Violet 421™ is a trademark of Sirigen Group Ltd.

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## Application Notes:

Additional reported applications (for the relevant formats) include: blocking of <sup>3</sup> and binding<sup>1</sup> 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 Ultra-LEAF™ recommend 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)
- 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)

#### **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 antigenpresenting cells. Interaction of CD279 ligands results in inhibition of T cell proliferation and cytokine secretion.