## **Product Data Sheet**

## PE/Dazzle™ 594 anti-mouse CD279 (PD-1)

**Catalog # / Size:** 1276135 / 25 μg

1276140 / 100 μg

**Clone:** 29F.1A12 **Isotype:** Rat IgG2a, κ

Immunogen: PD-1 cDNA followed by PD-1-lg fusion

protein

Reactivity: Mouse

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

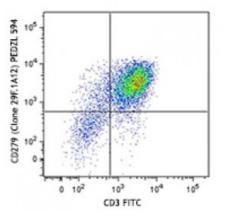
chromatography and conjugated with PE/Dazzle™ 594 under optimal conditions. The solution is free of unconjugated PE/Dazzle™ 594 and

unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2,

containing 0.09% sodium azide.

Concentration: Lot-specific



Con A-stimulated C57BL/6 splenocytes (three days) were stained with CD3 FITC and CD279 (clone 29F.1A12) PE/Dazzle™ 594 (top), or rat IgG2a, κ PE/Dazzle™ 594 isotype control (bottom).

CD3 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 ≤0.125 microg per million cells in 100 microL volume. It is recommended that the reagent be titrated for optimal performance for each application.

\* PE/Dazzle™ 594 has a maximum excitation of 566 nm and a maximum

emission of 610 nm.

Application Notes:

Additional reported applications (for the

relevant formats) include:

immunohistochemical staining of acetone-fixed frozen tissue3 and *in vivo* 

blocking of PD-1 binding to its

ligands<sup>2,3</sup>.

Application References:

1. Good-Jacobson KL, et al. 2010. Nat. Immunol. 11:535. (FC) PubMed

2. Lázár-Molnár E, et al. 2008. Proc. Natl. Acad. Sci. USA 105:2658. (Block)

igG2a, x Isotype Control

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103

3. Liang SC, et al. 2003. Eur. J. Immunol. 33:2706. (FC, IHC, Block)

**Description:** CD279, also known as programmed death-1 (PD-1), is a 50-55 kD glycoprotein

belonging to the CD28 family of the Ig superfamily. PD-1 is expressed on

activated splenic T and B cells and thymocytes. It is induced on activated myeloid cells as well. PD-1 is involved in lymphocyte clonal selection and peripheral tolerance through binding its ligands, B7-H1 (PD-L1) and B7-DC (PD-L2). It has

been reported that PD-1 and PD-L1 interactions are critical to positive selection and play a role in shaping the T cell repertoire. PD-L1 negative costimulation is essential for prolonged survival of intratesticular islet allografts.

## Antigen References:

- 1. Nishimura H, et al. 2001. Science 291:319
- 2. Agata Y, et al. 1996. Int. Immunol. 8:765
- 3. Liang SC, et al. 2003. Eur. J. Immunol. 33:2706
- 4. Barber DL, et al. 2006. Na