

## Biotin anti-mouse CD279 (PD-1)

**Catalog # / Size:** 135211 / 50 µg  
135212 / 500 µg

**Clone:** 29F.1A12

**Isotype:** Rat IgG2a, κ

**Immunogen:** PD-1 cDNA followed by PD-1-Ig fusion protein

**Reactivity:** Mouse

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

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

**Concentration:** 0.5 mg/ml

**Storage:** The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**

## Applications:

**Applications:** FC - Quality tested

**Recommended Usage:** Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is ≤1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application.

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

**Description:** CD279, also known as programmed death-1 (PD-1), is a 50-55 kD glycoprotein and belongs to the CD28 family of the Ig superfamily. PD-1 is expressed on activated splenic T and B lymphocytes 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 was 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 intrastreticular 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. *Nature* 439:682.
  5. Keir ME, *et al.* 2005. *J. Immunol.* 175:7372.
  6. Koehn BH, *et al.* 2008. *J. Immunol.* 181:5313.

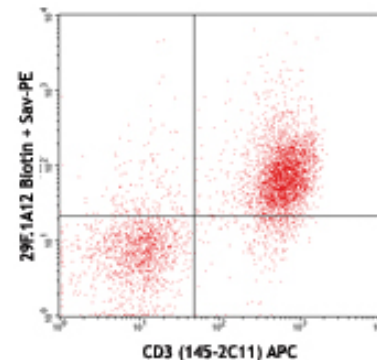
**Related Products:**

**Product**  
 Biotin Rat IgG2a, κ Isotype Ctrl  
 Cell Staining Buffer  
 RBC Lysis Buffer (10X)  
 TruStain fcX™ (anti-mouse CD16/32)

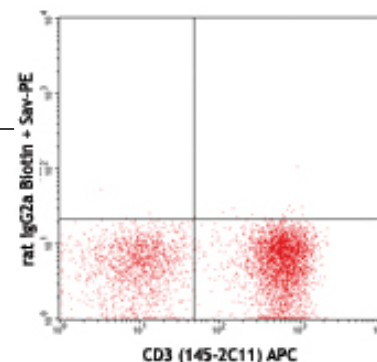
**Clone**  
 RTK2758

93

**Application**  
 FC, ICFC  
 FC, ICC, ICFC  
 FC, ICFC  
 FC



Con A-stimulated (3 days) C57BL/6 splenocytes stained with CD3 (145-2C11) APC and biotinylated anti-mouse PD-1 (clone 29F.1A12) followed by Sav-PE



Con A-stimulated (3 days) C57BL/6 splenocytes stained with CD3 (145-2C11) APC and biotinylated rat IgG2a, κ isotype control, followed by Sav-PE



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