

For Research Use Only

# Cardinal Red™ Anti-Human CD279 (EH12.2H7)



Catalog Number: CR-65168

## Basic Information

<b>Catalog Number:</b> CR-65168	<b>GenBank Accession Number:</b> BC074740	<b>Purification Method:</b> Affinity purification
<b>Size:</b> 100tests , 5 ul/test	<b>GeneID (NCBI):</b> 5133	<b>CloneNo.:</b> EH12.2H7
<b>Source:</b> Mouse	<b>Full Name:</b> programmed cell death 1	<b>Excitation/Emission maxima wavelengths:</b> 592 nm / 611 nm
<b>Isotype:</b> IgG1, kappa	<b>Calculated MW:</b> 288 aa, 32 kDa	

## Applications

**Tested Applications:**  
FC

**Species Specificity:**  
Non-human primates, Human

## Background Information

Programmed cell death 1 (PD-1, also known as CD279) is an immunoinhibitory receptor that belongs to the CD28/CTLA-4 subfamily of the Ig superfamily. It is a 288 amino acid (aa) type I transmembrane protein composed of one Ig superfamily domain, a stalk, a transmembrane domain, and an intracellular domain containing an immunoreceptor tyrosine-based inhibitory motif (ITIM) as well as an immunoreceptor tyrosine-based switch motif (ITSM) (PMID: 18173375). PD-1 is expressed during thymic development and is induced in a variety of hematopoietic cells in the periphery by antigen receptor signaling and cytokines (PMID: 20636820). Engagement of PD-1 by its ligands PD-L1 or PD-L2 transduces a signal that inhibits T-cell proliferation, cytokine production, and cytolytic function (PMID: 19426218). It is critical for the regulation of T cell function during immunity and tolerance. Blockade of PD-1 can overcome immune resistance and also has been shown to have antitumor activity (PMID: 22658127; 23169436).

## Storage

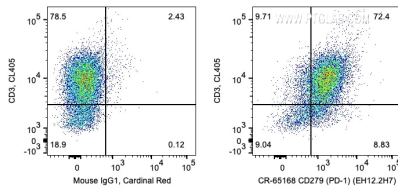
**Storage:**  
Store at 2-8°C. Avoid exposure to light. Stable for one year after shipment.

**Storage Buffer:**  
PBS with 0.09% sodium azide and 0.5% BSA.

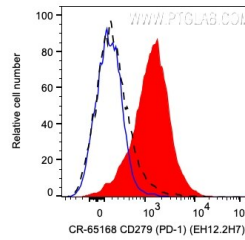
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## Selected Validation Data



$1 \times 10^6$  day 3 PHA treated human PBMCs were co-surface stained with CL405 Anti-Human CD3 and 5 ul Cardinal Red™ Anti-Human CD279 (CR-65168, Clone:EH12.2H7) or Mouse IgG1 Isotype Control. Cells were not fixed. Lymphocytes were gated.



$1 \times 10^6$  day 3 PHA treated human PBMCs were surface stained with 5 ul Cardinal Red™ Anti-Human CD279 (CR-65168, Clone: EH12.2H7) (red) or Mouse IgG1 Isotype Control (blue). Unactivated human PBMCs were surface stained with 5 ul Cardinal Red™ Anti-Human CD279 (black). Cells were not fixed. Lymphocytes were gated.