

For Research Use Only

Anti-Human PD-1/CD279 Rabbit Recombinant Antibody

Catalog Number: 98068-1-RR



Basic Information

Catalog Number: 98068-1-RR	GenBank Accession Number: BC074740	Purification Method: Protein A purification
Size: 100ug, 1000 µg/ml	GeneID (NCBI): 5133	CloneNo.: 240724G11
Source: Rabbit	UNIPROT ID: Q15116	Recommended Dilutions: IHC 1:500-1:2000
Isotype: IgG	Full Name: programmed cell death 1	
	Calculated MW: 288 aa, 32 kDa	

Applications

Tested Applications:
IHC, FC

Species Specificity:
human

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

IHC : human tonsillitis tissue,

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). It has been reported that PD-1 is heavily glycosylated and migrates with an apparent molecular mass of 47-55 kDa on SDS-PAGE, which is larger than its predicted mass of 32 kDa (PMID: 8671665; 17640856; 17003438).

Storage

Storage:
Store at 2 - 8°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.09% sodium azide, pH 7.3.

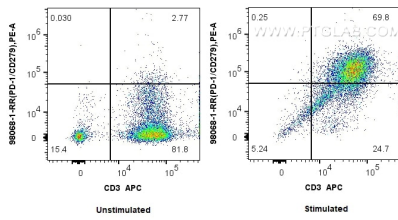
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

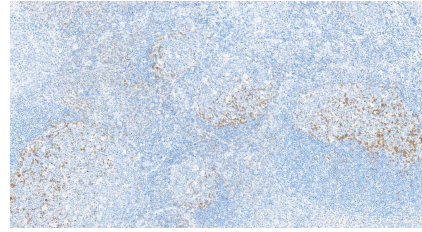
E: proteintech@ptglab.com
W: ptglab.com

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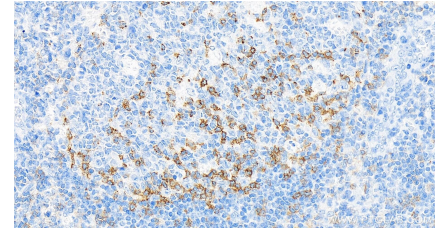
Selected Validation Data



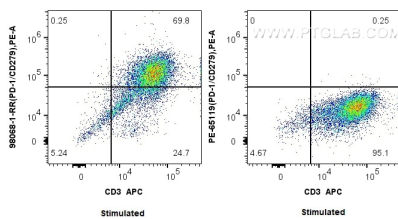
1x10⁶ unstimulated or PHA stimulated human PBMCs were surface stained with 0.25 ug Anti-Human PD-1/CD279 Rabbit Recombinant Antibody (98068-1-RR, Clone:240724G11) and PE-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). Cells were then stained with APC Anti-Human CD3. Cells were not fixed.



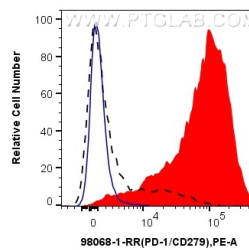
Immunohistochemical analysis of paraffin-embedded human tonsillitis tissue slide using 98068-1-RR (PD-1/CD279) antibody at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



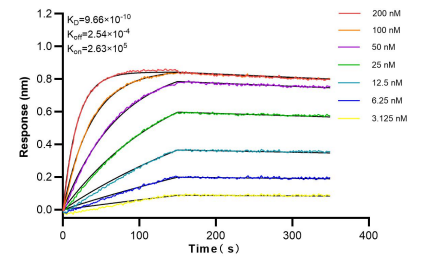
Immunohistochemical analysis of paraffin-embedded human tonsillitis tissue slide using 98068-1-RR (PD-1/CD279) antibody at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1x10⁶ PHA stimulated human PBMCs were stained with 0.25 ug Anti-Human PD-1/CD279 Rabbit Recombinant Antibody (98068-1-RR, Clone:240724G11)(left) or 0.25 ug PE Anti-Human PD-1/CD279 (J110) (PE-65119, Clone: J110)(right) and PE-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). Cells were then stained with APC Anti-Human CD3 (OKT3) Mouse IgG2a Recombinant Antibody (APC-65569, Clone: OKT3). Cells were not fixed.



1x10⁶ unstimulated (black) or PHA stimulated human PBMCs (red) were stained with 0.25 ug Anti-Human PD-1/CD279 Rabbit Recombinant Antibody (98068-1-RR, Clone:240724G11) and PE-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L). 1x10⁶ PHA treated human PBMCs were stained with Isotype Control(blue). Cells were not fixed.



Bilayer interferometry (BLI) kinetic assays of 98068-1-RR against Human PD-1/CD279 were performed. The affinity constant is 0.966 nM.