

For Research Use Only

CoraLite® Plus 647-conjugated PD-1/CD279 Monoclonal antibody



Catalog Number: CL647-66220

2 Publications

Basic Information

Catalog Number: CL647-66220	GenBank Accession Number: BC074740	Purification Method: Protein A purification
Size: 100ul , Concentration: 1000 µg/ml by Nanodrop;	GeneID (NCBI): 5133	CloneNo.: 4H4D1
Source: Mouse	Full Name: programmed cell death 1	Recommended Dilutions: IF 1:50-1:500
Isotype: IgG2b	Calculated MW: 288 aa, 32 kDa	Excitation/Emission maxima wavelengths: 654 nm / 674 nm
Immunogen Catalog Number: AG12470		

Applications

Tested Applications: FC, IF	Positive Controls: IF : human tonsillitis tissue,
Cited Applications: FC, IF	
Species Specificity: human, rat, mouse	
Cited Species: mouse, rat	

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). The calculated molecular weight of PD-1 is 32 kDa. It has been reported that PD-1 is heavily glycosylated and migrates with an apparent molecular mass of 47-55 kDa on SDS-PAGE (PMID: 8671665; 17640856; 17003438).

Notable Publications

Author	Pubmed ID	Journal	Application
Kirsten M Reeves	34615724	Clin Cancer Res	IF
Wanyue Cao	35706097	Transplantation	FC

Storage

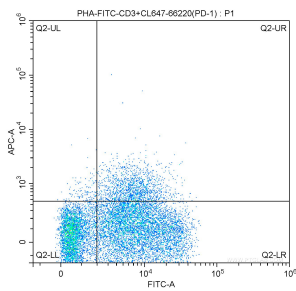
Storage:
Store at -20°C. Avoid exposure to light. Stable for one year after shipment.
Storage Buffer:
PBS with 50% Glycerol, 0.05% Proclin300, 0.5% BSA, pH 7.3.
Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

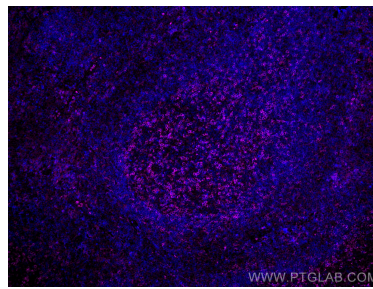
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

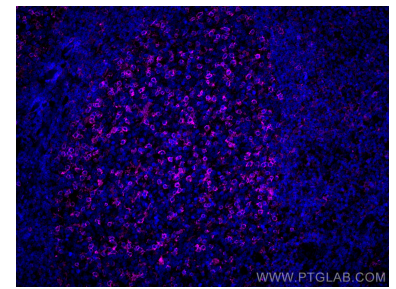
Selected Validation Data



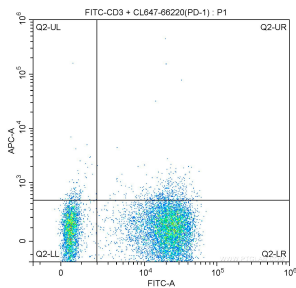
1X10⁶ PHA-stimulated (5 µg/mL, overnight) human peripheral blood mononuclear cells (PBMCs) were surface stained with 0.20 µg CoraLite647-conjugated Anti-Human PD-1/CD279 (CL647-66220, clone: 4H4D1) and 0.20 µg FITC-Anti-Human CD3 (FITC-65151, clone UCHT1). Cells were not fixed.



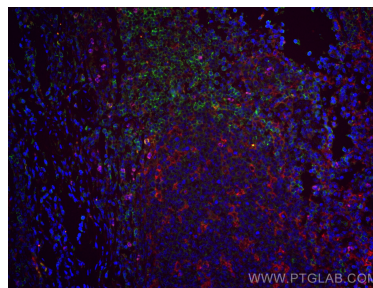
Immunofluorescent analysis of (4% PFA) fixed human tonsillitis tissue using CoraLite® Plus 647 PD-1/CD279 antibody (CL647-66220, Clone: 4H4D1) at dilution of 1:100.



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Immunofluorescent analysis of (4% PFA) fixed human tonsillitis tissue using CoraLite® Plus 647 PD-1/CD279 antibody (CL647-66220, Clone: 4H4D1) at dilution of 1:200, CoraLite®594 CD11c/Integrin Alpha X antibody (CL594-60258, Clone: 2F1C10, red), CoraLite®488 CD8 antibody (CL488-66868, Clone: 1G2B10, green).