

For Research Use Only

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

Catalog Number: CL647-66220

Featured Product

2 Publications



## Basic Information

Catalog Number:

CL647-66220

Source:

Mouse

Isotype:

IgG2b

Immunogen Catalog Number:

AG12470

GenBank Accession Number:

BC074740

GeneID (NCBI):

5133

UNIPROT ID:

Q15116

Full Name:

programmed cell death 1

Calculated MW:

288 aa, 32 kDa

Purification Method:

Protein A purification

CloneNo.:

4H4D1

Recommended Dilutions:

IF-P: 1:50-1:500

FC: 0.20 ug per 10<sup>6</sup> cells in a 100 µl suspension

Excitation/Emission maxima wavelengths:

654 nm / 674 nm

## Applications

Tested Applications:

IF-P, FC

Cited Applications:

IF, FC

Species Specificity:

human, mouse, rat

Cited Species:

mouse, rat

Positive Controls:

IF-P: human tonsillitis tissue,

FC: human PBMCs,

## 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, pH7.3

Aliquoting is unnecessary for -20°C storage

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

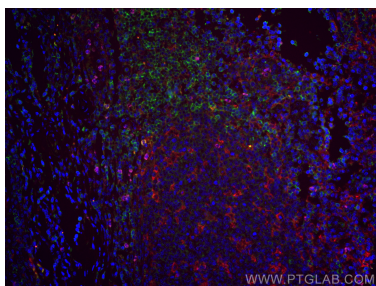
T: 4006900926

E: Proteintech-CN@ptglab.com

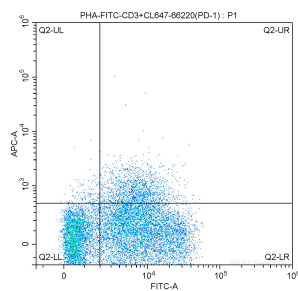
W: ptgcn.com

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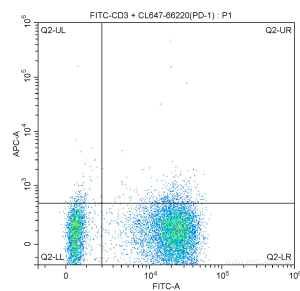
## Selected Validation Data



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).



1X10<sup>6</sup> PHA-stimulated (5  $\mu$ g/mL, overnight) human peripheral blood mononuclear cells (PBMCs) were surface stained with 0.20  $\mu$ g CoraLite647-conjugated Anti-Human PD-1/CD279 (CL647-66220, clone: 4H4D1) and 0.20  $\mu$ g FITC-Anti-Human CD3 (FITC-65151, clone UCHT1). Cells were not fixed.



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