

Human PD-1 antibody

Catalog Number: APD0811

PRODUCT INFORMATION

Catalog number

APD0811

Clone No.

4F12

Product type

Monoclonal Antibody

UnitProt No.

Q15116

NCBI Accession No.

AAH74740

Alternative Names

Programmed cell death 1, CD279, PD1, hPD-1, hPD-I, PDCD1

PRODUCT SPECIFICATION

Antibody Host

Mouse

Reacts With

Human

Concentration

1mg/ml (determined by BCA assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen

Recombinant human PDCD1 (21-167aa) purified from E. coli

Isotype

IgG2b kappa

Purification Note

By protein-G affinity chromatography

Application

ELISA, WB, ICC/IF, FACS

Usage

The antibody has been tested by ELISA, Western blot, ICC/IF and FACS analysis to assure specificity and reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

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Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

PD-1 is an immunoreceptor that belongs to the immunoglobulin (Ig) superfamily, also known as Programmed Cell Death 1. It is expressed on activated T cell, B cells, myeloid cells and a subset of thymocytes. PD-1 interacts with expressed PDL1 and PDL2 to inhibit the proliferation and activation of T cells and B cells. Both PDL1 and PDL2 are expressed in a wide variety of normal tissues including heart, lung, placenta, spleen and kidney. PD-1 might be involved in the regulation of peripheral tolerance and may help prevent autoimmune diseases.

General References

Freeman GJ, et al., (2000) J Exp Med. 192(7):1027-34.

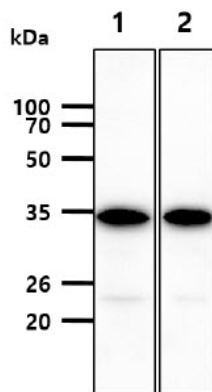
Latchman Y, et al., (2001) Nat Immunol. 2(3):261-8.

Nishimura H, Honjo T., (2001) Trends Immunol. 22(5):265-8.

Okazaki T, et al., (2001) Proc Natl Acad Sci USA. 98(24):13866-71.

DATA

Western blot analysis (WB)

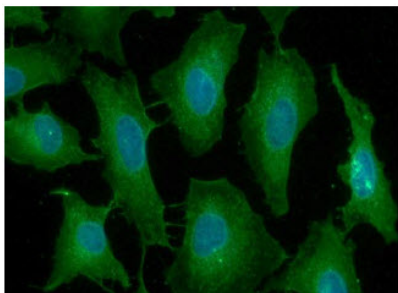


The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human PD-1 antibody (1:3000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

Lane 1.: 293T cell lysate

Lane 2.: Raji cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)

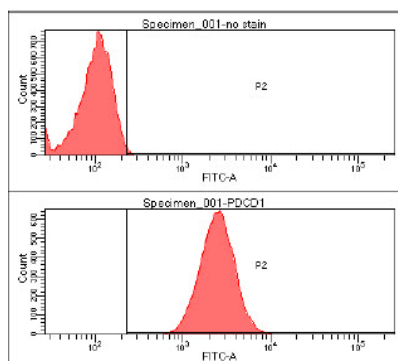


ICC/IF analysis of PD-1 in HeLa cells. The cell was stained with APD0811 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

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Flow cytometry (FACS)



Flow cytometry analysis of PD-1 in HeLa cell line, staining at 2-5ug for 1×10^6 cells (red line). The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate. Isotype control antibody was mouse IgG (black line).