

**Anti-PD-1 Antibody**  
Catalog # ABO12724**Specification**

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**Anti-PD-1 Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">Q15116</a>
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized

**Description**

Rabbit IgG polyclonal antibody for Programmed cell death protein 1(PDCD1) detection. Tested with WB in Human;Rat.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-PD-1 Antibody - Additional Information**

**Gene ID** 5133

**Other Names**

Programmed cell death protein 1, Protein PD-1, hPD-1, CD279, PDCD1, PD1

**Calculated MW**

31647 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human, Rat<br>

**Subcellular Localization**

Membrane; Single-pass type I membrane protein.

**Protein Name**

Programmed cell death protein 1

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>N.

**Immunogen**

E.coli-derived human PD1 recombinant protein (Position: P101-L288). Human PD1 shares 59% amino acid (aa) sequence identity with mouse PD1.

**Purification**

Immunogen affinity purified.

**Cross Reactivity**

No cross reactivity with other proteins

**Storage**

**At -20°C for one year. After r°Constitution, at 4°C for one month. It°Can also be aliquotted and stored frozen at -20°C for a longer time.Avoid repeated freezing and thawing.**

**Anti-PD-1 Antibody - Protein Information**

**Name** PDCD1 {ECO:0000303|PubMed:7851902, ECO:0000312|HGNC:HGNC:8760}

**Function**

Inhibitory receptor on antigen activated T-cells that plays a critical role in induction and maintenance of immune tolerance to self (PubMed:<a href="http://www.uniprot.org/citations/21276005" target="\_blank">21276005</a>). Delivers inhibitory signals upon binding to ligands CD274/PDCD1L1 and CD273/PDCD1LG2 (PubMed:<a href="http://www.uniprot.org/citations/21276005" target="\_blank">21276005</a>). Following T-cell receptor (TCR) engagement, PDCD1 associates with CD3-TCR in the immunological synapse and directly inhibits T-cell activation (By similarity). Suppresses T-cell activation through the recruitment of PTPN11/SHP-2: following ligand-binding, PDCD1 is phosphorylated within the ITSM motif, leading to the recruitment of the protein tyrosine phosphatase PTPN11/SHP-2 that mediates dephosphorylation of key TCR proximal signaling molecules, such as ZAP70, PRKCQ/PKCtheta and CD247/CD3zeta (By similarity).

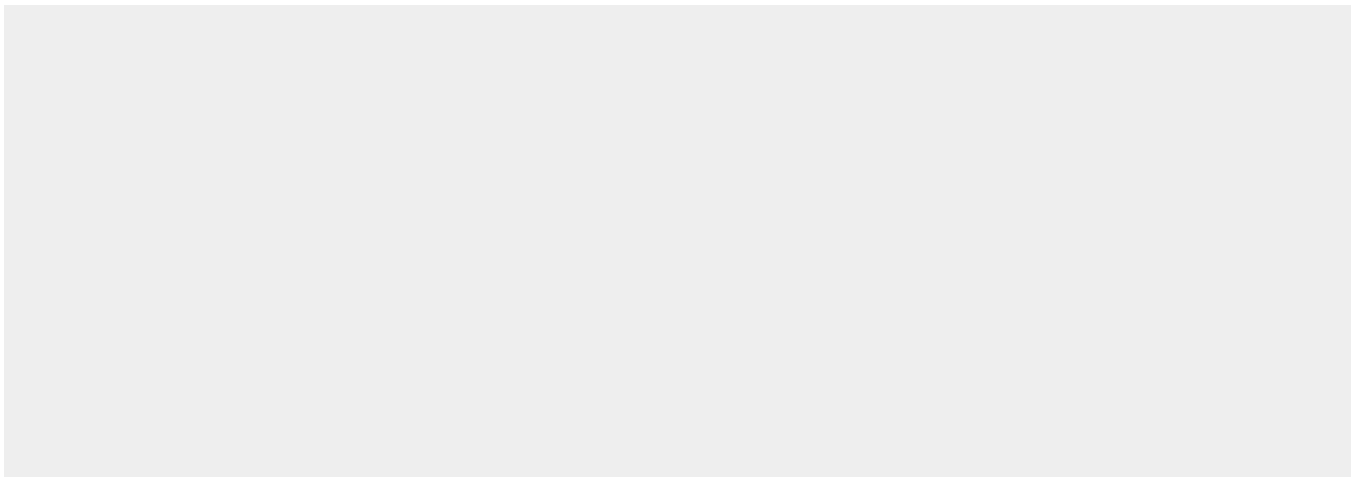
**Cellular Location**

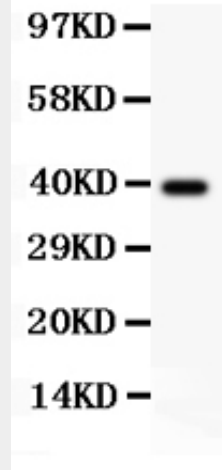
Cell membrane; Single-pass type I membrane protein

**Anti-PD-1 Antibody - Protocols**

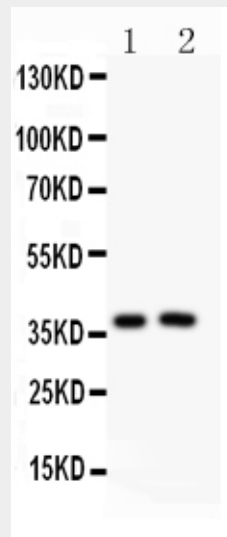
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Anti-PD-1 Antibody - Images**



Anti-PD1 Picoband antibody , ABO12724-1.jpg All lanes: Anti PD1 (ABO12724) at 0.5ug/ml WB: Recombinant Human PD1 Protein 0.5ng Predicted bind size: 38KD Observed bind size: 38KD



Anti-PD1 Picoband antibody , ABO12724-2.jpg All lanes: Anti PD1 (ABO12724) at 0.5ug/ml Lane 1: JURKAT Whole Cell Lysate at 40ug Lane 2: Human Placenta Tissue Lysate at 50ug Predicted bind size: 32KD Observed bind size: 38KD

**Anti-PD-1 Antibody - Background**

PDCD1(Programmed cell death 1), also called PD1, encodes a cell surface receptor that is a member of the B7 superfamily involved in immunomodulation. This gene is mapped to 2q37.3. PDCD1 acts as an inhibitory molecule on T cells after interacting with its ligands PDL1 and PDL2. The PDCD1 gene contains 5 exons. This protein is expressed in pro-B-cells and is thought to play a role in their differentiation. Using flow cytometric analysis, It has been found that expression of PDCD1 was upregulated on CD16-positive and CD16-negative monocytes, but not on dendritic cells, in viremic HIV-positive patients, but not in highly active antiretroviral therapy (HAART)-treated HIV-positive patients. PDCD1 upregulation in monocytes was induced by microbial Toll-like receptor ligands and inflammatory cytokines.