

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

Anti-PD-1 Antibody - Product Information

Application	WB
Primary Accession	Q15116
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

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 Na₂HPO₄, 0.05mg NaN₃.

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 reconstitution, 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:21276005, PubMed:37208329). Delivers inhibitory signals upon binding to ligands CD274/PDCD1L1 and CD273/PDCD1LG2 (PubMed:21276005). 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).

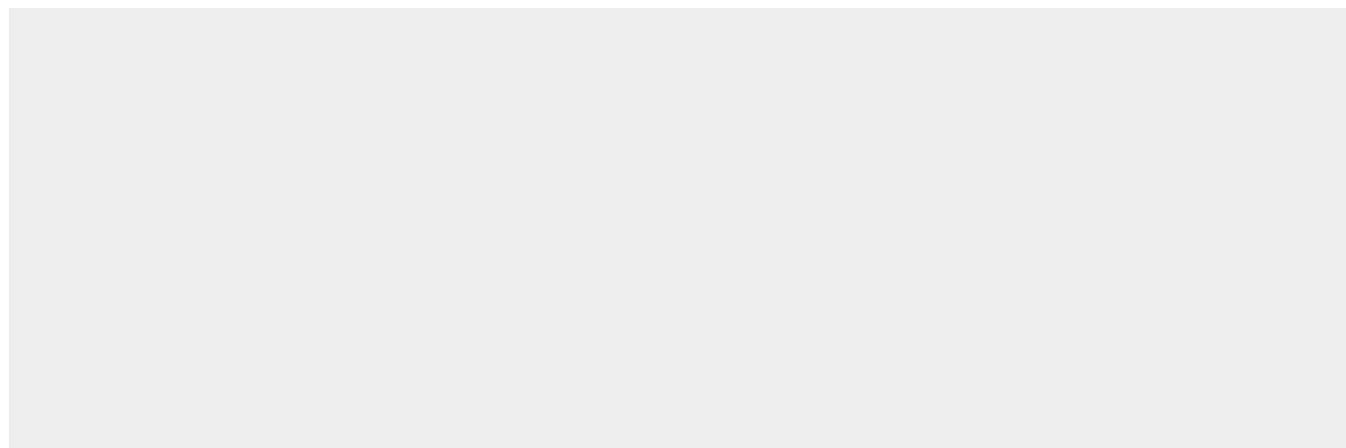
Cellular Location

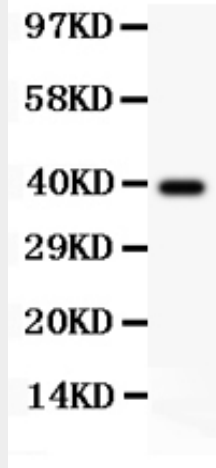
Cell membrane; Single-pass type I membrane protein

Anti-PD-1 Antibody - Protocols

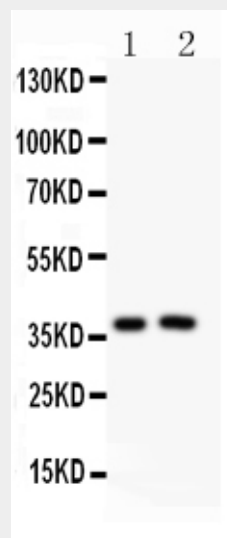
Provided below are standard protocols that you may find useful for product applications.

- [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.