

**Programmed cell death protein 1 (CD279) antibody**

□ Cat # PDCD1-A Rabbit anti-Human Programmed cell death protein 1 antibody **SIZE:** 100 ug

Programmed cell death protein 1, also known as PD-1 and CD279 (cluster of differentiation 279), is a protein on the surface of cells that has a role in regulating the immune system's response to the cells of the human body by down-regulating the immune system and promoting self-tolerance by suppressing T cell inflammatory activity. PD-1 is an immune checkpoint and guards against autoimmunity through two mechanisms. First, it promotes apoptosis (programmed cell death) of antigen-specific T-cells in lymph nodes. Second, it reduces apoptosis in regulatory T cells (anti-inflammatory, suppressive T cells). PD-1 inhibitors, a new class of drugs that block PD-1, activate the immune system to attack tumors and are used to treat certain types of cancer.

**Source of Antigen or Antibodies**

**Uniprot:** Q15116

**Host:** Rabbit

**Clonality:** Polyclonal

**Purification:** Ammonium sulfate followed by peptide affinity purification

**Immunogen:** Mix of 2 synthetic peptides, one of from the extracellular and one from the cytoplasmic region of Human PDCD1

**Species Reactivity:** Human

**Cross reactivity:** The peptide used as an immunogen exhibits 100% with non-human primates and 95% with Goat, Bovine, and Horse. Due to low reactivity, it is not recommended for other species.

**Subcellular Location:** Plasma membrane

**Alternative names:** PD-1. CD279

**Recommended Secondary Antibody:** Goat anti-Rabbit IgG-HRP (ADI cat#20320)

**Negative Control:** Non-immune Rabbit IgG (ADI cat# 20009-1).

**Form & Storage of Antibodies**

□ **Affinity pure IgG Solution**

Concentration: 0.5 mg/ml Volume: 200 ul  
Supplied in PBS pH 7.4 + 0.1% BSA  
\*Antibody can be made available carrier free or conjugated to HRP, Biotin, or FITC on request

□ **Lyophilized powder**

Reconstitute powder in 200 ul distilled water to 0.5 mg/ml

**Storage:**

**Short-term:** 4°C for 1 month

**Long-term:** at -20°C or below in suitable aliquots after reconstitution for 1 year. Do not expose to multiple freeze/thaw cycles or store working, diluted solutions.

**Recommended Usage**

**ELISA:** Assay dependent concentration. Typically 0.1-2.0 ug/ml for capture or detection antibody

**Western Blotting:** 0.5-1 ug/ml  
Observed Band size: ~57 kDa and ~29 kDa.  
Note: Due to variable glycosylation the protein may appear larger than the predicted size. ~29 kDa band may represent the mature non-glycosylated form of the protein.

**IHC-P:** 5-10 ug/ml. Antigen retrieval in pH 6 sodium citrate buffer is recommended.

**Flow cytometry:** Not validated in-house. We suggest 0.25-1.0 ug/test.

\*Above concentrations are a suggestion and user's must optimize assay based on their conditions. Antibody may work in other applications such as ICC or IP. These methods have not been tested by ADI.

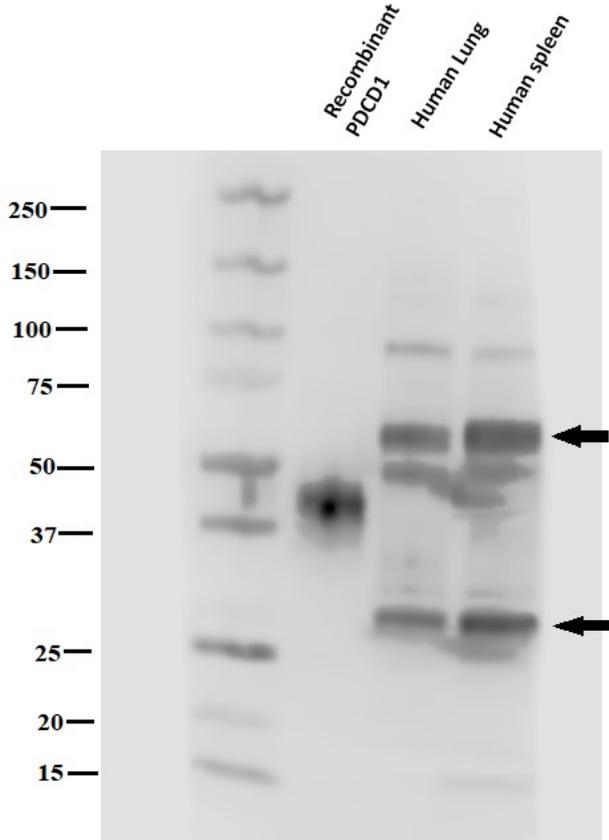
*\*This product is for In vitro research use only.*

**Related materials available from ADI**

ELISA kits for the detection of serum Opdivo® and Pembrolizumab® are also available from ADI

PDCD1-A

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2 ng of an HEK293 expressed PDCD1 (Extracellular domain), 20 ug Human spleen, and 20 ug Human lung were heated for 5 minutes at 95°C then separated on a 10% SDS-PAGE gel. The gel was run for ~1 hour and 30 minutes at 100V and transferred to a 0.2 um nitrocellulose membrane using the 'Mixed MW' settings on a Transblot Turbo (Biorad). The blot was blocked for 1 hour at room temperature with 1% Fish plasma (Aquablock, EastCoastBio). **PDCD1-A** was diluted with TBST+0.1% BSA to 1 ug/ml and incubated overnight at 4°C. Blot was washed with TBS-T 3 times for 5 minutes each. Goat anti-rabbit IgG HRP (**ADI cat#20320**) diluted 1:10,000 (50 ng/ml) in TBST+0.1% BSA and incubated for 1 hour at room temperature. The blot was washed with TBS-T 3 times for 5 minutes each. The blot was incubated with ADI Femto ECL substrate (**ADI cat#80210**) for 5 minutes then imaged on a CCD imaging system (LI-COR, C-DIGIT). Specific band is observed at ~29 kDa and 57 kDa.