

# Pdcd-1 (V-15): sc-10297

## BACKGROUND

Pdcd-1 (programmed cell death-1 protein), also designated CD279, is a type I transmembrane receptor and a member of the immunoglobulin gene superfamily. Pdcd-1 contains an immunoreceptor tyrosine-based inhibitory motif (ITIM) within the cytoplasmic domain, which is conserved between the mouse and human homologs. Expression of Pdcd-1 is detected in mouse thymus, and it is induced in stimulated B and T cell lines, where it may play a role in the negative regulation of various immune responses. Receptors such as Pdcd-1 function by recruiting tyrosine phosphatases, including SHP-1 and SHIP, which are responsible for altering various B cell responses. Additionally, in activated lymphocytes, Pdcd-1 mediates the activation of the classical type of programmed cell death.

## REFERENCES

1. Ishida, Y., et al. 1992. Induced expression of PD-1, a novel member of the immunoglobulin gene superfamily, upon programmed cell death. *EMBO J.* 11: 3887-3895.
2. Agata, Y., et al. 1996. Expression of the PD-1 antigen on the surface of stimulated mouse T and B lymphocytes. *Int. Immunol.* 8: 765-772.

## CHROMOSOMAL LOCATION

Genetic locus: PDCD1 (human) mapping to 2q37.3; Pdcd1 (mouse) mapping to 1 D.

## SOURCE

Pdcd-1 (V-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Pdcd-1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-10297 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

Pdcd-1 (V-15) is recommended for detection of Pdcd-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Pdcd-1 (V-15) is also recommended for detection of Pdcd-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Pdcd-1 siRNA (h): sc-44002, Pdcd-1 siRNA (m): sc-72037, Pdcd-1 shRNA Plasmid (h): sc-44002-SH, Pdcd-1 shRNA Plasmid (m): sc-72037-SH, Pdcd-1 shRNA (h) Lentiviral Particles: sc-44002-V and Pdcd-1 shRNA (m) Lentiviral Particles: sc-72037-V.

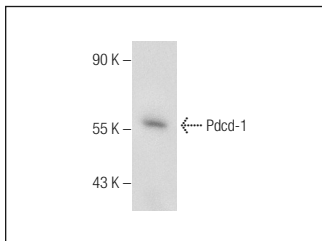
Molecular Weight of Pdcd-1: 55 kDa.

Positive Controls: NFS-5 C-1 whole cell lysate.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Pdcd-1 (V-15): sc-10297. Western blot analysis of Pdcd-1 expression in NFS-5 C-1 whole cell lysate.

## SELECT PRODUCT CITATIONS

1. Bolstad, A.I., et al. 2003. Increased salivary gland tissue expression of Fas, Fas ligand, cytotoxic T lymphocyte-associated antigen 4, and programmed cell death 1 in primary Sjogren's syndrome. *Arthritis Rheum.* 48: 174-185.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **Pdcd-1 (RMP1-14): sc-73402**, our highly recommended monoclonal alternative to Pdcd-1 (V-15).