

# Pdcd-1L1 (H-130): sc-50298

## BACKGROUND

Engagement of CD28 by B7-1 (CD80) or B7-2 (CD86) in the presence of antigen promotes T cell proliferation, cytokine production, differentiation of effector T cells and the induction of Bcl-x, a promoter of T cell survival. Conversely, engagement of CTLA4 by B7-1 or B7-2 may inhibit proliferation and IL-2 production. Pdcd-1L1 (programmed cell death ligand-1), also known as B7-H1 or PD-L1, is 290 amino acid type I transmembrane protein which is 20% and 15% identical to B7-1 and B7-2, respectively. Pdcd-1L2 has immunoglobulin V-like and C-like domains and a 30 amino acid cytoplasmic tail. It does not bind CD28, cytotoxic T lymphocyte A4 or ICOS (inducible co-stimulator). IL-2, although produced in small amounts, is required for the effect of Pdcd-1L1 co-stimulation. The gene which encodes Pdcd-1L1 maps to human chromosome 9p24.1. Pdcd-1L2 (programmed cell death ligand-2) is a 73 amino acid protein which contains a signal sequence, IgV- and IgC-like domains, a transmembrane region and a cytoplasmic region. The gene which encodes Pdcd-1L2 maps to human chromosome 9p24.1. The constitutive expression of Pdcd-1L1 and Pdcd-1L2 on parenchymal cells of heart, lung and kidney suggests that the Pdcd-1-Pdcd-L system could provide unique negative signaling to help prevent autoimmune disease.

## CHROMOSOMAL LOCATION

Genetic locus: CD274 (human) mapping to 9p24.1; Cd274 (mouse) mapping to 19 C1.

## SOURCE

Pdcd-1L1 (H-130) is a rabbit polyclonal antibody raised against amino acids 24-153 mapping near the N-terminus of Pdcd-1L1 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.

## APPLICATIONS

Pdcd-1L1 (H-130) is recommended for detection of Pdcd-1L1 isoforms 1 and 3 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-1L1 (H-130) is also recommended for detection of Pdcd-1L1 isoforms 1 and 3 in additional species, including equine.

Suitable for use as control antibody for Pdcd-1L1 siRNA (h): sc-39699, Pdcd-1L1 siRNA (m): sc-39700, Pdcd-1L1 shRNA Plasmid (h): sc-39699-SH, Pdcd-1L1 shRNA Plasmid (m): sc-39700-SH, Pdcd-1L1 shRNA (h) Lentiviral Particles: sc-39699-V and Pdcd-1L1 shRNA (m) Lentiviral Particles: sc-39700-V.

Molecular Weight (predicted) of Pdcd-1L1: 33 kDa.

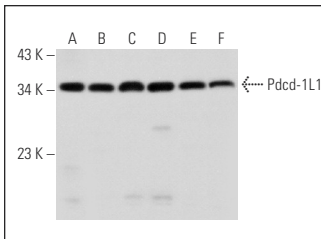
Molecular Weight (observed) of Pdcd-1L1: 47 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or NIH/3T3 whole cell lysate: sc-2210.

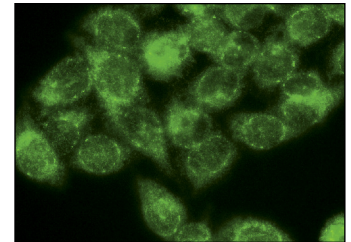
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



Pdcd-1L1 (H-130): sc-50298. Western blot analysis of Pdcd-1L1 expression in NIH/3T3 (A), Hep G2 (B), HeLa (C), Jurkat (D), JAR (E) and JEG-3 (F) whole cell lysates.



Pdcd-1L1 (H-130): sc-50298. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane and cytoplasmic localization.

## SELECT PRODUCT CITATIONS

- Hong, Z.F., et al. 2009. Immunosuppressive function of bone marrow mesenchymal stem cells on acute rejection of liver allografts in rats. *Transplant. Proc.* 41: 403-409.

## 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-1L1 (1C10): sc-293425**, our highly recommended monoclonal alternative to Pdcd-1L1 (H-130).