

Pdcd-1 (E-18): sc-10299

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.
3. Ono, M., et al. 1996. Role of the inositol phosphatase SHIP in negative regulation of the immune system by the receptor Fc γ RIIB. *Nature* 383: 263-266.
4. Vivier, E., et al. 1997. Immunoreceptor tyrosine-based inhibitory motifs. *Immunol. Today* 18: 286-291.
5. Nishimura, H., et al. 1999. Development of Lupus-like autoimmune diseases by disruption of the PD-1 gene encoding an ITIM motif-carrying immunoreceptor. *Immunity* 11: 141-151.
6. Okazaki, T., et al. 2002. New regulatory co-receptors: inducible co-stimulator and PD-1. *Curr. Opin. Immunol.* 14: 779-782.
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CHROMOSOMAL LOCATION

Genetic locus: Pdcd1 (mouse) mapping to 1 D.

SOURCE

Pdcd-1 (E-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Pdcd-1 of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-10299 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Pdcd-1 (E-18) is recommended for detection of Pdcd-1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

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

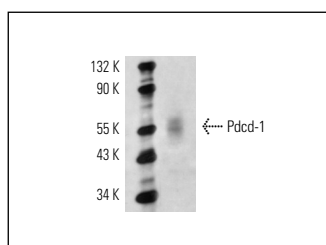
Molecular Weight of Pdcd-1: 55 kDa.

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 (E-18): sc-10299. Western blot analysis of Pdcd-1 expression in NFS-5 C-1 whole cell lysate.

STORAGE

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

MONOS
Satisfaction
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Try **Pdcd-1 (RMP1-14): sc-73402**, our highly recommended monoclonal alternative to Pdcd-1 (E-18).