

Pdcd-2 (K-16): sc-22974

BACKGROUND

Pdcd-1 (programmed cell death-1 protein) 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. A related protein, Pdcd-2 (also known as PD-2, PDL2, or B7DC), is highly expressed in placenta, heart, pancreas, lung, and liver, and lowly expressed in spleen, lymph nodes, and thymus.

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 FcγRIIB. *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. Latchman, Y., et al. 2001. PD-L2 is a second ligand for PD-1 and inhibits T cell activation. *Nat. Immunol.* 2: 261-268.

CHROMOSOMAL LOCATION

Genetic locus: PDCD2 (human) mapping to 6q27; Pdcd2 (mouse) mapping to 17 A2.

SOURCE

Pdcd-2 (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Pdcd-2 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-22974 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Pdcd-2 (K-16) is recommended for detection of Pdcd-2 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).

Suitable for use as control antibody for Pdcd-2 siRNA (h): sc-37483, Pdcd-2 siRNA (m): sc-37484, Pdcd-2 shRNA Plasmid (h): sc-37483-SH, Pdcd-2 shRNA Plasmid (m): sc-37484-SH, Pdcd-2 shRNA (h) Lentiviral Particles: sc-37483-V and Pdcd-2 shRNA (m) Lentiviral Particles: sc-37484-V.

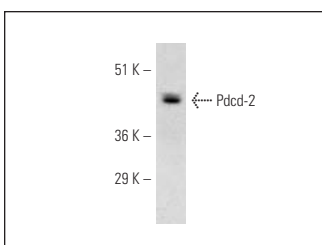
Molecular Weight of Pdcd-2: 43 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214.

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 Blotting A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) 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-2 (K-16): sc-22974. Western blot analysis of Pdcd-2 expression in KNRK whole cell lysate.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.