

PD-1/PDCD1, Human Recombinant

PD, PD 1, PD 1 protein, PD 1 recombinant protein, human PD 1 protein, human recombinant PD 1 protein

Catalog # PBV11501r

Specification

PD-1/PDCD1, Human Recombinant - Product info

Primary Accession

[Q15116](#)

Calculated MW

19.1 kDa KDa

PD-1/PDCD1, Human Recombinant - Additional Info

Gene ID

5133

Other Names

PDCD1, PD1, CD279, SLEB2, hPD-1, hPD-I

Gene Source

Human

Source

E. coli

Assay&Purity

SDS-PAGE; ≥90%

Assay2&Purity2

SEC; ≥90%

Recombinant

Yes

Target/Specificity

PD-1/PDCD1

Application Notes

Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4 to a concentration of 50 µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. For extended storage, it is recommended to store at -20°C.

Format

Lyophilized

Storage

-20°C; Lyophilized from 0.22 µm filtered solution in PBS.

PD-1/PDCD1, Human Recombinant - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

PD-1/PDCD1, Human Recombinant - Images

PD-1/PDCD1, Human Recombinant - Background

Programmed death protein 1 (PD-1) is also known as CD279 and PDCD1, is a type I membrane protein and is a member of the extended CD28/CTLA-4 family of T cell regulators. PDCD1 is expressed on the surface of activated T cells, B cells, macrophages, myeloid cells and a subset of thymocytes. PD-1 has two ligands, PD-L1 and PD-L2, which are members of the B7 family. PD-L1 is expressed on almost all murine tumor cell lines, including PA1 myeloma, P815 mastocytoma, and B16 melanoma upon treatment with IFN- γ . PD-L2 expression is more restricted and is expressed mainly by DCs and a few tumor lines. PD1 inhibits the T-cell proliferation and production of related cytokines including IL-1, IL-4, IL-10 and IFN- γ by suppressing the activation and transduction of PI3K/AKT pathway. In addition, coligation of PD1 inhibits BCR-mediating signal by dephosphorylating key signal transducer. In vitro, treatment of anti-CD3 stimulated T cells with PD-L1-Ig results in reduced T cell proliferation and IFN- γ secretion. Monoclonal antibodies targeting PD-1 that boost the immune system are being developed for the treatment of cancer. This protein is suitable for use in protein studies such as protein structure analysis and protein-protein interactions. It can also be used as an immunogen, as a protein standard, or in cell biology research applications.