Anti-Mouse PD1 Antibody [PSH04-18] - BSA and Azide free (Detector)

HA722101

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Mouse
Applications:	ELISA(Det)
Molecular Wt:	Predicted band size: 31.8 kDa
Clone number:	PSH04-18

Description: Programmed cell death protein 1 (PD-1), (CD279 cluster of differentiation 279). PD-1 is a protein encoded in humans by the PDCD1 gene. PD-1 is a cell surface receptor on T cells and B cells that has a role in regulating the immune system's response to the cells of the human body by down-regulating the immune system and promoting self-tolerance by suppressing T cell inflammatory activity. This prevents autoimmune diseases, but it can also prevent the immune system from killing cancer cells. PD-1 is an immune checkpoint and guards against autoimmunity through two mechanisms. First, it promotes apoptosis (programmed cell death) of antigen-specific T-cells in lymph nodes. Second, it reduces apoptosis in regulatory T cells (anti-inflammatory, suppressive T cells). PD-1 inhibitors, a new class of drugs that block PD-1, activate the immune system to attack tumors and are used to treat certain types of cancer. PD-1 is a cell surface receptor that belongs to the immunoglobulin superfamily and is expressed on T cells and pro-B cells. PD-1 binds two ligands, PD-L1 and PD-L2.

Immunogen: Recombinant protein within Mouse PD1 aa 25-167 (Q02242).

Positive control: Recombinant standard Mouse PD1 protein (HA210625).

Subcellular location: Cell membrane.

Database links: SwissProt: Q02242 Mouse

Recommended Dilutions:

ELISA(Det) Use at an assay dependent concentration. Can be paired for Sandwich ELISA with Rabbit monoclonal [PSH04-17] to Mouse PD1 (Capture) (HA722100) and recombinant standard Mouse PD1 protein (HA210625). The reference range value is 12.3-3000pg/ml.

Storage Buffer: PBS (pH7.4).

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

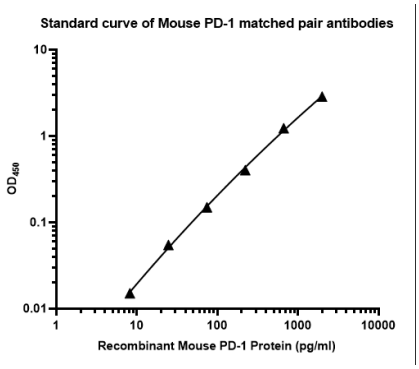

Fig1: Sandwich ELISA analysis of Mouse PD-1 matched pair antibodies

Elisa assay was performed by coating wells of a 96-well plate with 100 µl per well of capture antibody (HA722100) diluted in carbonate/bicarbonate buffer, at a concentration of 5 µg/ml overnight at 4℃. Wells of the plate were washed, blocked with 150 µl 0.05% tween-20 1% BSA blocking buffer, and incubated with serial diluted Recombinant Mouse PD-1 protein (HA210625) starting from 2000 pg/ml to 0 pg/ml and detect antibody (HA722101) (Biotin-conjugated, 0.2 µg/ml) for 1 hour at 30℃ with shaking. Then the plate was washed and incubated with 100 µl per well of SA-HRP for 0.5 hour at 30℃ with shaking. Detection was performed using an Ultra TMB Substrate for 10 minutes at room temperature in the dark. The reaction was stopped with sulfuric acid and absorbances were read on a spectrophotometer at 450 nm.

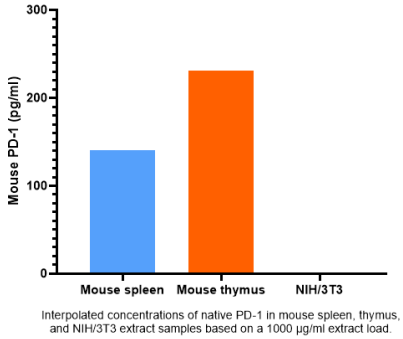

Fig2: The concentrations of PD-1 were interpolated from the PD-1 standard curve and corrected for sample dilution. The mean PD-1 concentration was determined to be 141 pg/ml in mouse spleen tissue extract, 231 pg/ml in mouse thymus tissue extract. There was no detectable signal in NIH/3T3 cell extract.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Wei CY et al. PKCα/ZFP64/CSF1 axis resets the tumor microenvironment and fuels anti-PD1 resistance in hepatocellular carcinoma. J Hepatol. 2022 Jul
2. Lei Q et al. Resistance Mechanisms of Anti-PD1/PDL1 Therapy in Solid Tumors. Front Cell Dev Biol. 2020 Jul