

Anti-PD-1 Antibody (2U287)

Product Details

Ig Type:	Human IgG4
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	2U287
Purification:	Affinity-chromatography

Applications

Verified Activity:	The Binding Activity of PD-1 with anti-PD-1 antibody Activity: Measured by its binding ability in a functional ELISA. Immobilized Human PD-1 at 2 µg/mL can bind Anti-PD-1 recombinant antibody, the EC50 is 1.960-3.961 ng/mL.
Application:	ELISA

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	Recombinant Protein: Human PD-1 Protein
Antigen Species:	Human
Gene ID:	5133
Uniprot ID:	Q15116
Synonyms:	PD1;CD279;PD-1;PDCD1;SLEB2
Biology Area:	Immunology

Research Background

Inhibitory receptor on antigen activated T-cells that plays a critical role in induction and maintenance of immune tolerance to self. Delivers inhibitory signals upon binding to ligands CD274/PDCD1L1 and CD273/PDCD1LG2. Following T-cell receptor (TCR) engagement, PDCD1 associates with CD3-TCR in the immunological synapse and directly inhibits T-cell activation. Suppresses T-cell activation through the recruitment of PTPN11/SHP-2: following ligand-binding, PDCD1 is phosphorylated within the ITSM motif, leading to the recruitment of the protein tyrosine phosphatase PTPN11/SHP-2 that mediates dephosphorylation of key TCR proximal signaling molecules, such as ZAP70, PRKCQ/PKctheta and CD247/CD3zeta. The PDCD1-mediated inhibitory pathway is exploited by tumors to attenuate anti-tumor immunity and escape destruction by the immune system, thereby facilitating tumor survival. The interaction with CD274/PDCD1L1 inhibits cytotoxic T lymphocytes (CTLs) effector function. The blockage of the PDCD1-mediated pathway results in the reversal of the exhausted T-cell phenotype and the normalization of the anti-tumor response, providing a rationale for cancer immunotherapy.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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