

Anti-PD-1 Antibody (5R506)

Product Details

Ig Type:	IgG1
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	5R506
Purification:	Protein G purified

Applications

	Western Blot
	-Positive WB detected in: 5µg 293 whole cell lysate transfected with PD-1, 25ng recombinant protein from E.coli, 25ng recombinant protein from Mammalian cell
Verified Activity:	PD-1 antibody at 1:1000
	-Secondary: Goat polyclonal to mouse IgG at 1/50000 dilution
	-Predicted band size: 72, 36 KDa
	-Observed band size: 72, 36 KDa
	-Exposure time: 5min
Application:	ELISA, WB

Properties

Purity:	>95%
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 Programmed cell death Protein 1 Protein (21-170AA)
Antigen Species:	Human
Gene ID:	5133
Uniprot ID:	Q9NZQ7
Synonyms:	PD-L1;B7-H;B7-H1;B7H1;PD-L1B7 homolog 1;CD274;PDCD1L1;PDCD1LG1;PDL1
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/PKtheta and CD247/CD3zeta. The PDCD1-mediated inhibitory pathway is exploited by tumors to

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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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