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Anti-PD-1 (Pembrolizumab), humanized Antibody

Human Monoclonal Antibody
Catalog # ABV12037

Product Information

Application	E
Primary Accession	Q02242
Reactivity	Human
Host	Human
Clonality	Monoclonal
Isotype	Human IgG4
Clone Names	N/A
Calculated MW	31842

Additional Information

Gene ID	18566
Other Names	Keytruda, PD-1
Target/Specificity	PD-1
Antibody Form	Liquid
Appearance	Colorless liquid
Formulation	In phosphate buffered saline, pH 7.5
Handling	The antibody solution should be gently mixed before use.
Reconstitution & Storage	-20 °C
Background Descriptions	
Precautions	Anti-PD-1 (Pembrolizumab), humanized Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Pdcd1 {ECO:0000312|MGI:MGI:104879}
Function	Inhibitory receptor on antigen activated T-cells that plays a critical role in induction and maintenance of immune tolerance to self (PubMed:10485649, PubMed:11209085, PubMed:11698646, PubMed:21300912). Delivers inhibitory signals upon binding to ligands, such as CD274/PDCD1L1 and CD273/PDCD1LG2 (PubMed:11015443, PubMed:11224527, PubMed:18287011, PubMed:18641123, PubMed:22641383). Following T-cell

	receptor (TCR) engagement, PDCD1 associates with TCR-CD3 in the immunological synapse and directly inhibits T-cell activation (PubMed:22641383). 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 (PubMed:11698646, PubMed:22641383). The PDCD1-mediated inhibitory pathway is exploited by tumors to attenuate anti-tumor immunity and facilitate tumor survival (By similarity).
Cellular Location	Cell membrane; Single-pass type I membrane protein
Tissue Location	Thymus-specific..

Background

Pembrolizumab (Keytruda) is a humanized monoclonal antibody that is approved by the U.S. Food and Drug Administration for the treatment of patients with unresectable or metastatic melanoma. Pembrolizumab binds to the human cell surface receptor PD-1 (Programmed Cell Death Protein 1) and blocks its interaction with PD-L1, resulting in the activation of T-cell-mediated immune responses against tumor cells.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.