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Anti-PD-1 (Nivolumab), Humanized Antibody

Human Monoclonal Antibody
Catalog # ABV12038

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	Opdivo, PD-1
Target/Specificity	PD-1
Antibody Form	Liquid
Appearance	Colorless liquid
Formulation	In phosphate buffered saline, pH 7.6
Handling	The antibody solution should be gently mixed before use.
Reconstitution & Storage	-20 °C
Background Descriptions	
Precautions	Anti-PD-1 (Nivolumab), 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

Nivolumab, trade name Opdivo, is a medication used to treat cancer. It is used as a first line treatment for inoperable or metastatic melanoma in combination with ipilimumab if the cancer does not have a mutation in BRAF, as a second-line treatment following treatment with ipilimumab and if the cancer has a mutation in BRAF, with a BRAF inhibitor, as a second-line treatment for squamous non-small cell lung cancer, and as a second-line treatment for renal cell carcinoma.

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