

Product datasheet for **RC213071**

PD-L1 (CD274) (NM_014143) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	PD-L1
Synonyms:	B7-H; B7H1; hPD-L1; PD-L1; PDCD1L1; PDCD1LG1; PDL1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC213071 representing NM_014143 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAGGATATTTGCTGTCTTTATATTCATGACCTACTGGCATTGCTGAACGCATTTACTGTCACGGTTC
 CCAAGGACCTATATGTGGTAGAGTATGGTAGCAATATGACAATTGAATGCAAATCCCAGTAGAAAAACA
 ATTAGACCTGGCTGCACTAATTGTCTATTGGGAAATGGAGGATAAGAACATTATCAATTTGTGCATGGA
 GAGGAAGACCTGAAGTTTCAGCATAGTAGCTACAGACAGAGGGCCCGGCTGTTGAAGGACCAGCTCTCCC
 TGGGAAATGCTGCACTTCAGATCAGATGTGAAATTGCAGGATGCAGGGGTGTACCGCTGCATGATCAG
 CTATGGTGGTGCCGACTACAAGCGAATTACTGTGAAAGTCAATGCCCCATACAACAAAATCAACCAAGA
 ATTTTGGTTGTGGATCCAGTCACCTCTGAACATGAACTGACATGTCAGGCTGAGGGCTACCCCAAGGCCG
 AAGTCATCTGGACAAGCAGTGACCATCAAGTCCTGAGTGGTAAGACCACCACCACCAATTCGAAGAGAGA
 GGAGAAGCTTTTCAATGTGACCAGCAGCTGAGAATCAACACAACAACTAATGAGATTTTCTACTGCACT
 TTTAGGAGATTAGATCCTGAGGAAAACCATACAGCTGAATTGGTCATCCCAGAACTACCTCTGGCACATC
 CTCCAAATGAAAGGACTCACTTGGTAATTCTGGGAGCCATCTTATTATGCCTTGGTGTAGCACTGACATT
 CATCTTCCGTTTAAGAAAAGGAGAATGATGGATGTGAAAAAATGTGGCATCCAAGATACAACTCAAAG
 AAGCAAAGTGATACACATTTGGAGGAGACG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC213071 representing NM_014143
 Red=Cloning site Green=Tags(s)

MRIFAVFIFMTYWHLNNAFTVTVPKDLVVEYGSNMTIECKFPVEKQLDLAALIVWEMEDKNIIQFVHG
 EEDLKVQHSSYRQARLLKQQLSLGNAALQITDVKLQDAGVYRCMISYGGADYKRITVKVNAPYNKINQR
 ILVVDPTSEHETCQAEGYPKAEVIWTSDDHQLVSGKTTTNSKREEKLFNVTSTLRINTTTNEIFYCT
 FRRLDPEENHTAELVPELPLAHPNERTHLVILGAILLCLGVALTFIFRLRKGRMMDVKKCGIQDTNSK
 KQSDTHLEET

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6110_f01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_014143

ORF Size: 870 bp

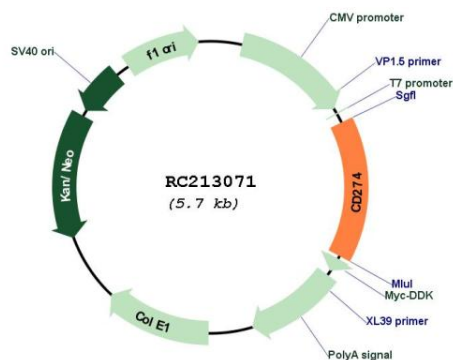
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

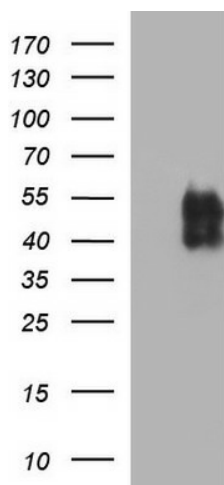
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none"> 1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_014143.4</u>
RefSeq Size:	1553 bp
RefSeq ORF:	873 bp
Locus ID:	29126
UniProt ID:	<u>Q9NZQ7</u>
Cytogenetics:	9p24.1
Domains:	ig, IG
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Cell adhesion molecules (CAMs)
MW:	33.28 kDa
Gene Summary:	<p>This gene encodes an immune inhibitory receptor ligand that is expressed by hematopoietic and non-hematopoietic cells, such as T cells and B cells and various types of tumor cells. The encoded protein is a type I transmembrane protein that has immunoglobulin V-like and C-like domains. Interaction of this ligand with its receptor inhibits T-cell activation and cytokine production. During infection or inflammation of normal tissue, this interaction is important for preventing autoimmunity by maintaining homeostasis of the immune response. In tumor microenvironments, this interaction provides an immune escape for tumor cells through cytotoxic T-cell inactivation. Expression of this gene in tumor cells is considered to be prognostic in many types of human malignancies, including colon cancer and renal cell carcinoma. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]</p>

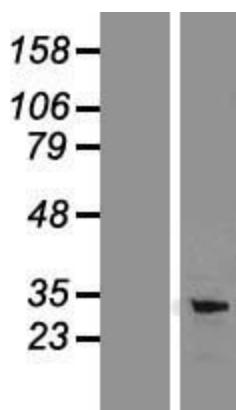
Product images:



Circular map for RC213071



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CD274 (Cat# RC213071, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CD274 (Cat# [TA507087]). Positive lysates [LY415473] (100ug) and [LC415473] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY415473]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213071 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).