

Product datasheet for **RC224141**

PD L2 (PDCD1LG2) (NM_025239) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PD L2 (PDCD1LG2) (NM_025239) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PD L2
Synonyms:	B7DC; bA574F11.2; Btdc; CD273; PD-L2; PDCD1L2; PDL2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC224141 representing NM_025239 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGATCTTCCTCCTGCTAATGTTGAGCCTGGAATTGCAGCTTCACCAGATAGCAGCTTTATTCACAGTGA
CAGTCCCTAAGGAACTGTACATAATAGAGCATGGCAGCAATGTGACCCTGGAATGCAACTTTGACTG
AAGTCATGTGAACCTTGAGCAATAACAGCCAGTTTGCAAAGGTGGAAAATGATACATCCCCACACCGT
GAAAGAGCCACTTTGCTGGAGGAGCAGCTGCCCTAGGGAAGGCCTCGTCCACATACCTCAAGTCCAAG
TGAGGGACGAAGGACAGTACCAATGCATAATCATCTATGGGGTCGCCTGGGACTACAAGTACCTGACTCT
GAAAGTCAAAGCTTCCTACAGGAAAATAAACACTCACATCCTAAAGGTTCCAGAAACAGATGAGGTAGAG
CTCACCTGCCAGGCTACAGGTTATCCTCTGGCAGAAGTATCCTGGCCAAACGTCAGCGTTCTGCCAACA
CCAGCCACTCCAGGACCCCTGAAGGCCTCTACCAGGTCACCAGTGTCTGCGCCTAAAGCCACCCCTGG
CAGAACTTCAGCTGTGTCTTGGAACTCAGTGAGGGAAGTACTTTGGCCAGCATTGACCTTCAA
AGTCAGATGGAACCCAGGACCCATCCAATTGGCTGCTTACATTTTCATCCCCTCCTGCATATTGCTT
TCATTTTCATAGCCACAGTGATAGCCCTAAGAAAACAACCTGTGCAAAAGCTGTATTCTTCAAAGACAC
AACAAAAAGACCTGTACCACAACAAAGAGGGAAGTGAACAGTGTATC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC224141 representing NM_025239
 Red=Cloning site Green=Tags(s)

MIFLLLMLSLELQLHQIAALFTVTPKELYIIIEHGSNVTLECNFDTGSHVNLGAITASLQKVENDTSPHR
 ERATLLEEQLPLGKASFHIPQVQVRDEGQYQCIIYGVAWDYKYLTLKVKASYRKINTHILKVPETDEVE
 LTCQATGYPLAEVSWPNVSVYPANTSHSRTPEGLYQVTSVLRRLKPPPGRNFSCVFNWTHVRELTLASIDLQ
 SQMEPRTHPTWLLHIFIPSCIIAFIFIAITVIALRKQLCQKLYSSKDTTKRPVTTTKREVNSAI

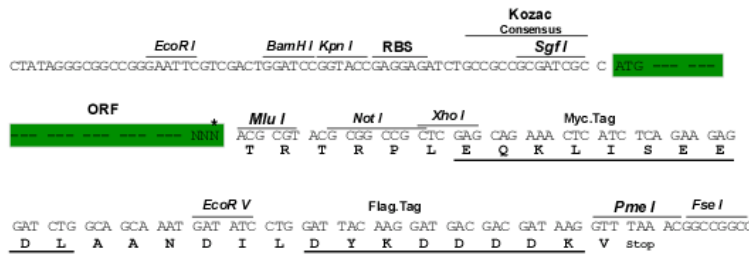
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6242_f08.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_025239

ORF Size: 819 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:

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.

RefSeq: [NM_025239.2](#), [NP_079515.1](#)

RefSeq Size: 1518 bp

RefSeq ORF: 822 bp

Locus ID: 80380

UniProt ID: [Q9BQ51](#)

Cytogenetics: 9p24.1

Domains: IG

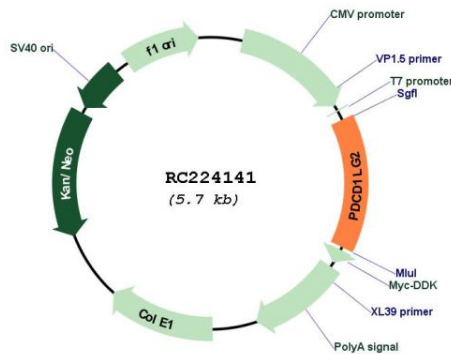
Protein Families: Transmembrane

Protein Pathways: Cell adhesion molecules (CAMs)

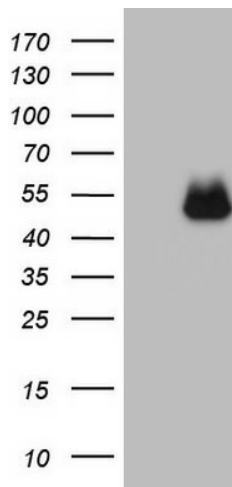
MW: 30.8 kDa

Gene Summary: Involved in the costimulatory signal, essential for T-cell proliferation and IFNG production in a PDCD1-independent manner. Interaction with PDCD1 inhibits T-cell proliferation by blocking cell cycle progression and cytokine production (By similarity).[UniProtKB/Swiss-Prot Function]

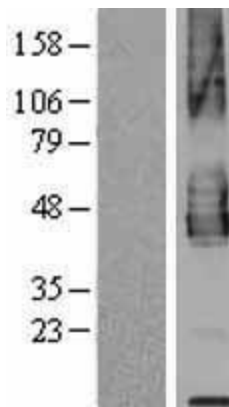
Product images:



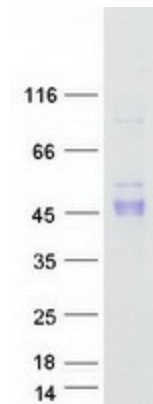
Circular map for RC224141



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PDCD1LG2 (Cat# RC224141, 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-PDCD1LG2 (Cat# [TA808990])(1:2000). Positive lysates [LY410802] (100ug) and [LC410802] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY410802]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224141 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PDCD1LG2 protein (Cat# [TP324141]). The protein was produced from HEK293T cells transfected with PDCD1LG2 cDNA clone (Cat# RC224141) using MegaTran 2.0 (Cat# [TT210002]).