

Product datasheet for MR227347

Pdcd1 (NM_008798) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Pdcd1 (NM_008798) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Pdcd1
Synonyms: Ly101; PD-1; Pdc1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR227347 representing NM_008798
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGGGTCGGCAGGTACCCTGGTCATTCACCTGGGCTGTGCTGCAGTTGAGCTGGCAATCAGGGTGGC
TTCTAGAGGTCCCAATGGGCCCTGGAGGTCCTCACCTTCTACCCAGCCTGGCTCACAGTGTGAGAGGG
AGCAAATGCCACCTTCACCTGCAGCTTGTCCAAGTGGTCGGAGGATCTTATGCTGAAGTGAACCGCCTG
AGTCCCAGCAACCAGACTGAAAAACAGGCCGCTTCTGTAAATGGTTTGGCCAAACCGTCCAGGATGCC
GCTTCCAGATCATACAGCTGCCAACAGGCATGACTTCCACATGAACATCCTTGACACACGGCGCAATGA
CAGTGGCATCTACCTCTGTGGGGCCATCTCCCTGCACCCAAAGGCAAAATCGAGGAGAGCCTGGAGCA
GAGCTCGTGGTAACAGAGAGAATCCTGGAGACCTCAACAAGATATCCAGCCCTCGCCAAACAGAAAG
GCCGGTTTCAAGGCATGGTCATTGGTATCATGAGTGCCTAGTGGGTATCCCTGTATTGCTGCTGTGGC
CTGGGCCCTAGCTGTCTTCTGCTCAACAAGTATGTGAGAGGCCAGAGGAGCTGGAAGCAAGGACGACACT
CTGAAGGAGGAGCCTTCAGCAGCACCTGTCCCTAGTGTGGCTATGAGGAGCTGGACTTCCAGGGACGAG
AGAAGACACCAGAGCTCCCTACCGCCTGTGTGCACACAGAATATGCCACCATTGTCTTACTGAAGGGCT
GGGTGCCTCGGCCATGGGACGTAGGGCTCAGCTGATGGCCTGCAGGGTCTCGGCCCTCAAGACATGAG
GATGGACATTGTTCTTGGCCTCTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR227347 representing NM_008798
Red=Cloning site Green=Tags(s)

MWVRQVPWSFTWAVLQLSWQSGWLLVVPNGPWRS�TFYPAWLTVSEGANATFTCSLSNWSEDLMLNWNRL
 SPSNQTEKQAAFENGLSQPVQDARFQIIQLPNRHDFHMNILDTRRNDSGIYLCGATSLHPKAKIEESPGA
 ELVVTERILETSTRYPSPKPEGRFQGMVIGIMSALVGIPVLLLLLAWALAVFCSTSMSEARGAGSKDDT
 LKEEPSAAPVPSVAYEELDFQGREKTPELPTACVHTEYATIVFTEGLGASAMGRRGSADGLQGPRPPRHE
 DGHCSWPL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mm9050_d02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_008798

ORF Size: 867 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_008798.2](#), [NP_032824.1](#)

RefSeq Size: 1972 bp

RefSeq ORF: 867 bp

Locus ID: 18566

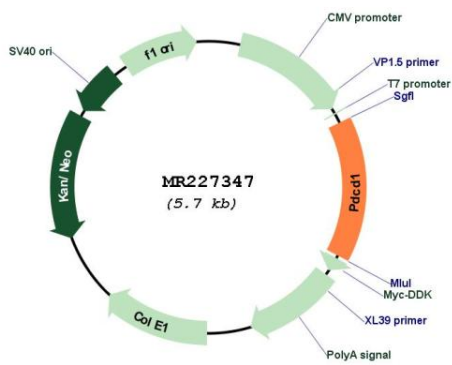
UniProt ID: [Q02242](#)

Cytogenetics: 1 D

MW: 31.8 kDa

Gene Summary: Inhibitory receptor on antigen activated T-cells that plays a critical role in induction and maintenance of immune tolerance to self (PubMed:10485649, PubMed:11698646, PubMed:11209085, PubMed:21300912). Delivers inhibitory signals upon binding to ligands, such as CD274/PDCD1L1 and CD273/PDCD1LG2 (PubMed:11015443, PubMed:11224527, PubMed:22641383, PubMed:18287011, PubMed:18641123). Following T-cell receptor (TCR) engagement, PDCD1 associates with CD3-TCR 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).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR227347