

Product datasheet for MC209155

Pdcd1 (NM_008798) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Pdcd1 (NM_008798) Mouse Untagged Clone
Symbol:	Pdcd1
Synonyms:	Ly101; PD-1; Pdc1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>MC209155 representing NM_008798 Red=Cloning site Blue=ORF

TTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGTGGGTCCGGCAGGTACCCTGGTCATTCACTTGGGCTGTGCTGCAGTTGAGCTGGCAATCAGGGTGCC
TTCTAGAGGTCCCAATGGGCCCTGGAGGTCCCTCACCTTCTACCCAGCCTGGCTCACAGTGTGAGAGG
AGCAATGCCACCTTCACCTGCAGCTTGTCCTCACTGGTCGGAGGATCTTATGCTGAACTGGAACCGCCTG
AGTCCCAGCAACCAGACTGAAAAACAGGCCGCTTCTGTAATGGTTTGAGCCAACCGTCCAGGATGCC
GCTTCCAGATCATACAGCTGCCAACAGGCATGACTTCCACATGAACATCCTTGACACACGGCGCAATGA
CAGTGGCATCTACCTCTGTGGGGCCATCTCCCTGCACCCCAAGGCAAAATCGAGGAGAGCCCTGGAGCA
GAGCTCGTGGTAACAGAGAGAATCCTGGAGACCTCAACAAGATATCCAGCCCTCGCCCAACAGGAAG
GCCGTTTCAAGGCATGGTCATTGGTATCATGAGTGCCCTAGTGGGTATCCCTGTATTGCTGCTGCTGGC
CTGGGCCCTAGCTGTCTTCTGCTCAACAAGTATGTGAGAGGCCAGAGGAGCTGGAAGCAAGGACGACACT
CTGAAGGAGGAGCCTTCAGCAGCACCTGTCCCTAGTGTGGCTATGAGGAGCTGGACTTCCAGGGACGAG
AGAAGACACCAGAGCTCCCTACCGCCTGTGTGCACACAGAATATGCCACCATTGTCTTCACTGAAGGGCT
GGGTGCCTCGCCATGGGACGTAGGGGCTCAGCTGATGGCCTGCAGGGTCTCGGCCTCCAAGACATGAG
GATGGACATTGTTCTTGGCCTCTTGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites:	SgfI-MluI
ACCN:	NM_008798
Insert Size:	867 bp


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OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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](#)

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: [BC120602](#), [AAI20603](#)

RefSeq Size: 1344 bp

RefSeq ORF: 867 bp

Locus ID: 18566

UniProt ID: [Q02242](#)

Cytogenetics: 1 D

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]