

Product datasheet for **SC117011**

PD1 (PDCD1) (NM_005018) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PD1 (PDCD1) (NM_005018) Human Untagged Clone
Tag:	Tag Free
Symbol:	PD1
Synonyms:	CD279; hPD-1; hPD-I; hSLE1; PD-1; PD1; SLEB2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF:

OriGene sequence for NM_005018 edited
 GAATTCGGCACGAGGTGGAGAAGGCGGCACTCTGGTGGGGCTGCTCCAGGCATGCAGATC
 CCACAGGCGCCCTGGCCAGTCGTCTGGGCGGTGCTACAACCTGGGCTGGCGGCCAGGATGG
 TTCTTAGACTCCCCAGACAGGCCCTGGAACCCCCCACCTTCTCCCCAGCCCTGCTCGTG
 GTGACCGAAGGGGACAACGCCACCTTCACCTGCAGCTTCTCCAACACATCGGAGAGCTTC
 GTGCTAAACTGGTACCGCATGAGCCCCAGCAACCCAGACGGACAAGCTGGCCGCCCTTCCC
 GAGGACCGCAGCCAGCCCGGCCAGGACTGCCGCTTCCGTGTACACAACCTGCCAACGGG
 CGTGACTTCCACATGAGCGTGGTCAGGGCCCGGCGCAATGACAGCGGCACCTACCTCTG
 GGGGCCATCTCCCTGGCCCCAAGGCGCGAGATCAAAGAGAGGCTCGGGGCAGAGCTCAGG
 GTGACAGAGTAAGGCGAGGTGCCACAGCCACCCAGCCCTCACCCAGGCCAGCC
 GGCCAGTCTCAAACCTGAGTGTGGTTGGTGTCTGTGGCGGCTGCTGGGACAGCTGTGTCTG
 CTAGTCTGGGTCTGGCCGTCTATCTGCTCCCGGGCCGACGAGGGACAATAGGAGCCAGG
 CGCACCGGCCAGCCCTGAAGGAGGACCCCTCAGCCGTGCCTGTGTTCTCTGTGGACTAT
 GGGGAGCTGGATTTCAGTGGCGAGAGAAGACCCCGGAGCCCCCGTGCCTGTGTCCCT
 GAGCAGACGGAGTATGCCACCATGTCTTTCTAGCGGAATGGGCACCTCATCCCCGCC
 CGCAGGGGCTCAGCCGACGGCCCTCGGAGTGCCAGCCACTGAGGCCTGAGGATGGACAT
 TGCTCTTGCCCCCTCTGACCGGCTTCTTGGCCACCAGTGTTCTGCAGACCCTCCACCAT
 GAGCCCGGGTCAGCCGATTTCTCAGGAGAAGCAGGCAGGGTGACAGGCCATTGCAGGCCG
 TCCAGGGGCTGAGCTGCCTGGGGGCGACCGGGGCTCCAGCCTGCACCTGCACCAGGCACA
 GCCCCACCACAGGACTCATGTCTCAATGCCACAGTGAGCCAGGCAGCAGGTGTACCG
 TCCCCACAGGGAGGGCCAGATGCAGTCACTGCTTCAGGTCTGCCAGCACAGAGCTGCC
 TGGCTCCAGTCCCTGAATCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCGGCC
 CGGGCTGTAAGGCGCGTGGCCCTGCCTGACGCCCCGGAGCCCTCCTGCACTGAATTTGGG
 GCTGTTGGAGATGCGCTTTGAGACGCCAAGGTGCCCTTGGCAGTGGCATCCCGAAACGC
 CCTGGACGCAGGGCCCAAGACTGGGCACAGGAGTGGGAGGTACATGGGGCTGGGGACTCC
 CCAGGAGTTATCTGCTCCCTGCAGGCCTAGAGAAGTTTCAGGGAAGGTGAGAAGAGCTC
 TGGCTGTGGTGGGCAGGGCAGGAAACCCCTCCACCTTTACACATGCCAGGCAGCACCTC
 AGGCCCTTTGTGGGCGAGGAAGCTGAGGCAGTAAGCGGGCAGGCAGAGCTGGAGGCCCT
 TCAGGCCAGCCAGCACTCTGGCCTCCTGCCGCCGATTCCACCCAGCCCTCACACCA
 CTCGGGAGAGGGACATCCTACGGTCCCAAGGTGAGGAGGGCAGGGCTGGGGTTGACTCAG
 GCCCTCTCCAGCTGTGGCCACCTGGGTGTTGGGAGGGCAGAAGTGCAGGCACCTAGGGCC
 CCCCATGTGCCACCCCTGGGAGCTCTCCTTGGAACCCATTCTGAAATTATTTAAAGGGG
 TTGGCCGGGCTCCCACCAGGGCCTGGGTGGGAAGGTACAGGCGTTCCCCCGGGGCTAGT
 ACCCCCGCGTGGCTATCCACTCCTACATCCACACACTGCACCCCACTCCTGGGGCA
 GGGCCACCAGCATCCAGGCGGCCAGCAGGCACCTGAGTGGCTGGGACAAGGGATCCCCCT
 TCCCTGTGGTCTATTATATTATAATTATAATTAAATATGAGAGCATGCCAAAAA
 AAAAAAATCGAC

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_005018 unedited
 GCATTTTGTAAATACGAACTCACTATAGGGCGGCCGCAATTTCGCACGAGGTGGAGAAGGC
 GGCACCTCTGGTGGGGCTGCTCCAGGCATGCAGATCCCACAGGCGCCCTGGCCAGTCGTCT
 GGGCGGTGCTACAACCTGGGCTGGCGGCCAGGATGGTTCTTAGACTCCCCAGACAGGCCCT
 GGAACCCCCACCTTCTCCCCAGCCCTGCTCGTGGTGACCGAAGGGGACAACGCCACCT
 TCACCTGCAGCTTCTCCAACACATCGGAGAGCTTCGTGCTAACTGGTACCGCATGAGCC
 CCAGAACCCAGACGGACAAGCTGGCCGCCCTTCCCGAGGACCGCAGCCAGCCCGGCCAGG
 ACTGCCCGCTTCCGTGTACACAACCTGCCAACGGGCGTGACTTCCACATGAGCGTGGTCA
 GGGCCCGGCGCAATGACAGCGGCACCTACCTCTGTGGGGCCATCTCCCTGGCCCCCAAGG
 CGCAGATCAAAGAGAGCCTGCGGGCAGAGCTCAGGGTGACAGAGAGAAGGGCAGAAGTGC
 CCACAGCCACCCAGCCCTCACCCAGGCCAGCGGCCAGTTCCAAACCCTGGTGGTTG
 GTGTCTGTGGGCGGCTGCTGGGCAGCCTGGTGTCTAGTCTGGGTCTGGCCGTATCT
 GCTCCCGGGCCGACGAGGGACAATAGGAGCCAGGCGACCGGCCAGCNCCTGAAGAGG
 ACCCTCAGCCGTGCCTGTGTTCTCTGTGGAATATGGGGAGCTGGATTTCCAGTGGCGAG
 AGAAGACCCCGGACCCCGTGCCTGTGTCCCTGAGCAGACGGAGTATGCCACCATTGT
 CTTTCTAGCGGAATGGGCACCTCATNCCGCCCGCAGGGGCTCAGCCGACGGCCCTCG
 GAGTGCCAGCCCTGAGGCTGAGATGGACCTGCTCTTGCCCTCTGACGGCTNCTGGCCC
 CAGGT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_005018 unedited
 CGCGGCCGCAATTAGNATCGAGTTTTTTTTTTTTTTTTTTTGGCATGCTCTCATATTTAA
 TTATAATTATAATATAATAGAACCACAGGAAGGGGGATCCCTTGTCAGCCACTCAGG
 TGCTGTGTCGGCCCTGGATGCTGGTGGCCCTGCCCAGGAGTGGGGGTGCAGTGTGTGG
 ATGTGAGGAGTGGATAGGCCACGGCGGGGTAAGGCCCGGGGAACGCCTGTACCTT
 CCCACCCAGGCCCTGGTGGGAGCCCGGCCAACCCCTTTAAATAATTTAGGAATGGGTTT
 CAAGGAGAGTCCCAGGGTGGGCACATGGGGGGCCCTAGGTGCCTGCACTTCTGCCCTCC
 CAACACCCAGGTGGCCACAGCTGGGAGGGGCTGAGTCAACCCAGCCCTGCCCTCTGA
 CCTTGGGACCGTAGGATGTCCCTCTCCCGAGTGGTGTGAGGGGCTGGGGTGAATGCGGC
 GGCAGGAGGCCAGAGTGTGGCTGGGCCGAAAGGCCCTCAGCTCTGCCTGCCCGCTTAC
 TGCCTCAGCTTTCTGCCCAACAAGGGCCTGAGGTGCTGCCTGGGCATGTGTAAGGTG
 GAGGGGTTTTCTGCCCTGCCACACAGCCAGGAGCTCTTCTGACCTTTCTGAAACTTC
 TCTAGGCTGTCAGGGAGCAGATAACTTCTGGGAGTCCCAGCCCCATTGTCTTCCAAT
 TCTGTGCCAGTCTTGGGCCCTGCGCCAGGGCGTTTTGGGATGCCCTGCCCGGGGCC
 CTTTGTGGTCCAAGCCATTTCCAACCAACCCCAAGTTTCCAGGAGGTTCCGGGCGTAA
 GGAAGGGCCCGCCCTTTAACCCCGGCCCATGCACTACTACATCATATCATCAGTTCCG
 AGTATATGGAGCTGGCCCCAGCACTTTTTGTCTGCAGGACTCGAAACAT

Restriction Sites:

NotI-NotI

ACCN:

NM_005018

Insert Size:

867 bp

OTI Disclaimer:

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

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:	<u>NM_005018.1, NP_005009.1</u>
RefSeq Size:	2106 bp
RefSeq ORF:	867 bp
Locus ID:	5133
UniProt ID:	<u>Q15116</u>
Cytogenetics:	2q37.3
Domains:	ig, IGv, IG
Protein Families:	Druggable Genome, Transmembrane
Protein Pathways:	Cell adhesion molecules (CAMs), T cell receptor signaling pathway
Gene Summary:	Programmed cell death protein 1 (PDCD1) is an immune-inhibitory receptor expressed in activated T cells; it is involved in the regulation of T-cell functions, including those of effector CD8+ T cells. In addition, this protein can also promote the differentiation of CD4+ T cells into T regulatory cells. PDCD1 is expressed in many types of tumors including melanomas, and has demonstrated to play a role in anti-tumor immunity. Moreover, this protein has been shown to be involved in safeguarding against autoimmunity, however, it can also contribute to the inhibition of effective anti-tumor and anti-microbial immunity. [provided by RefSeq, Aug 2020]