

## Product datasheet for **RG210364**

### PD1 (PDCD1) (NM\_005018) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** PD1 (PDCD1) (NM\_005018) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** PD1  
**Synonyms:** CD279; hPD-1; hPD-I; hSLE1; PD-1; PD1; SLEB2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG210364 representing NM\_005018  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGC**C

ATGCAGATCCCACAGGCGCCCTGGCCAGTCGTCTGGGCGGTGCTACAACCTGGGCTGGCGGCCAGGATGGT  
 TCTTAGACTCCCCAGACAGGCCCTGGAACCCCCACCTTCTCCCAGCCCTGCTCGTGGTGACCGAAGG  
 GGACAACGCCACCTTACCTGCAGCTTCTCCAACACATCGGAGAGCTTCGTGCTAACTGGTACCGCATG  
 AGCCCCAGCAACCAGACGACAAGCTGGCCGCTTCCCGAGGACCGCAGCCAGCCCGGCCAGGACTGCC  
 GCTTCCGTGTACACAACCTGCCAACGGGCGTGACTTCCACATGAGCGTGGTCAGGGCCCGCGCAATGA  
 CAGCGGCACCTACCTCTGTGGGGCCATCTCCCTGGCCCCAAGGCGCAGATCAAAGAGAGCTGCGGGCA  
 GAGCTCAGGGTGACAGAGAGAAGGGCAGAAGTGCCACAGCCACCCAGCCCTCACCCAGGCCAGCCG  
 GCCAGTTCCAAACCTGGTGGTGGTGTGCTGGGCGGCCTGCTGGGCGAGCCTGGTGTGCTAGTCTGGGT  
 CCTGGCCGTATCTGCTCCCGGGCCGCACGAGGGACAATAGGAGCCAGGCGCACCAGCCAGCCCTGAAG  
 GAGGACCCTCAGCCGTGCCTGTGTTCTCTGTGGACTATGGGAGCTGGATTTCCAGTGGCGAGAGAAGA  
 CCCCAGGCCCCCGTGCCTGTGTCCTGAGCAGACGGAGTATGCCACCATTGTCTTCTAGCGGAAT  
 GGGCACCTATCCCCGCCCCGAGGGCTCAGCCGACGGCCCTCGGAGTGCCAGCCACTGAGGCCTGAG  
 GATGGACTGCTCTTGGCCCCCTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG210364 representing NM\_005018  
Red=Cloning site Green=Tags(s)

MQIPQAPWPVVWAVLQLGWRPGWFLDSPDRPWNPTTFSPALLVVTEGDNATFTCSFSNTSESVLNNWYRM  
 SPSNQTDKLAAPFEDRSQPGQDCRFRTQLPNGRDFHMSVVRARRNDSGYLTCGAI SLAPKAQIKESLRA  
 ELRVTERRAEVPTAHPSPSPRPAGQFQTLVVG VVGGLLGSLVLLVWVLAVICSRAARGTIGARRTGQPLK  
 EDPSAVPVFSDVYGELDFQWREKTPPEPPVPCVPEQTEYATIVFPSGMGTSSPARRGSADGPRSAQPLRPE  
 DGHCSWPL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_005018

**ORF Size:** 864 bp

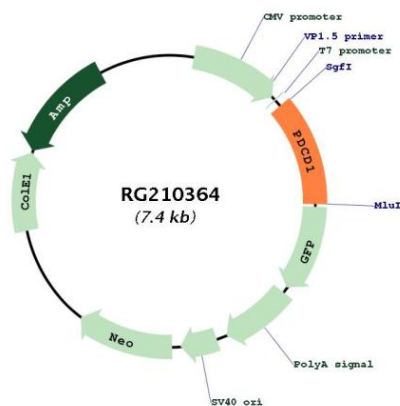
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

|                               |   |
|-------------------------------|---|
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>   |
| <b>Note:</b>                  | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.  |
| <b>RefSeq:</b>                | <u><a href="#">NM_005018.1</a></u> , <u><a href="#">NP_005009.1</a></u>   |
| <b>RefSeq Size:</b>           | 2106 bp   |
| <b>RefSeq ORF:</b>            | 867 bp  |
| <b>Locus ID:</b>              | 5133  |
| <b>UniProt ID:</b>            | <u><a href="#">Q15116</a></u>   |
| <b>Cytogenetics:</b>          | 2q37.3  |
| <b>Domains:</b>               | ig, IGv, IG   |
| <b>Protein Families:</b>      | Druggable Genome, Transmembrane   |
| <b>Protein Pathways:</b>      | Cell adhesion molecules (CAMs), T cell receptor signaling pathway   |
| <b>Gene Summary:</b>          | 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] |

## Product images:



Circular map for RG210364