

Product datasheet for MC209157

Pdcd6 (NM_011051) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Pdcd6 (NM_011051) Mouse Untagged Clone
Tag: Tag Free
Symbol: Pdcd6
Synonyms: alg-2; Alg2; AV299538; MA-3; PS2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Fully Sequenced ORF: >MC209157 representing NM_011051
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTGCCTACTCCTACCGCCAGGCCCGGGTGGTGGCCCCGGCCCTGCTGCTGGAGCTGCACTGCCAG
 ACCAGAGCTTCCGTGGAACGTCTCCAGCGGGTTGATAAAGACAGGAGTGGAGTGATTCAGACAATGA
 GCTTCAGCAAGCATTATCCAATGGTACATGGACTCCATTTAACCAGTACTGTGAGGTCAATCATTCT
 ATGTTTGACCGAGAAAACAAGGCTGGTGTGAATTCAGTGAATTCACGGGTGTGGAAGTATATCACAG
 ACTGGCAGAATGTCTCCGGACCTACGACAGGGACAACCTCTGGGATGATTGACAAGAACGAGCTCAAACA
 AGCACTCTCAGGTTTTGGCTACCGGCTCTCTGATCAGTTCATCCAGGCTGCATCGTCTTGACAGGTTGACAGACA
 CAAGGACGGGGCCAGATCGCATTGATGACTTCATCCAGGCTGCATCGTCTTGACAGGTTGACAGACA
 TATTCAGACGCTATGACACGGATCAGGATGGCTGGATTCAGGTGTCTTATGAGCAATATCTCTCCATGGT
 CTT**CAGCATTGTA**TAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: Sgfl-Mlul
ACCN: NM_011051
Insert Size: 576 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.

RefSeq: [NM_011051.3](#), [NP_035181.1](#)

RefSeq Size: 1524 bp

RefSeq ORF: 576 bp

Locus ID: 18570

UniProt ID: [P12815](#)

Cytogenetics: 13 C1

Gene Summary:

Calcium sensor that plays a key role in processes such as endoplasmic reticulum (ER)-Golgi vesicular transport, endosomal biogenesis or membrane repair (PubMed:10744743, PubMed:11525164, PubMed:27541325). Acts as an adapter that bridges unrelated proteins or stabilizes weak protein-protein complexes in response to calcium: calcium-binding triggers exposure of apolar surface, promoting interaction with different sets of proteins thanks to 3 different hydrophobic pockets, leading to translocation to membranes (PubMed:10744743, PubMed:11525164, PubMed:27541325). Involved in ER-Golgi transport by promoting the association between PDCD6IP and TSG101, thereby bridging together the ESCRT-III and ESCRT-I complexes (PubMed:10744743, PubMed:11525164, PubMed:27541325). Together with PEF1, acts as calcium-dependent adapter for the BCR(KLHL12) complex, a complex involved in ER-Golgi transport by regulating the size of COPII coats (By similarity). In response to cytosolic calcium increase, the heterodimer formed with PEF1 interacts with, and bridges together the BCR(KLHL12) complex and SEC31 (SEC31A or SEC31B), promoting monoubiquitination of SEC31 and subsequent collagen export, which is required for neural crest specification (By similarity). Involved in the regulation of the distribution and function of MCOLN1 in the endosomal pathway (By similarity). Promotes localization and polymerization of TFG at endoplasmic reticulum exit site (By similarity). Required for T-cell receptor-, Fas-, and glucocorticoid-induced apoptosis (PubMed:8560270). May mediate Ca(2+)-regulated signals along the death pathway: interaction with DAPK1 can accelerate apoptotic cell death by increasing caspase-3 activity (By similarity). Its role in apoptosis may however be indirect, as suggested by knockout experiments (PubMed:12024023). May inhibit KDR/VEGFR2-dependent angiogenesis; the function involves inhibition of VEGF-induced phosphorylation of the Akt signaling pathway (By similarity).[UniProtKB/Swiss-Prot Function]