

Product datasheet for **RG206942**

PLD6 (NM_178836) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
 Product Name: PLD6 (NM_178836) Human Tagged ORF Clone
 Tag: TurboGFP
 Symbol: PLD6
 Synonyms: ZUC
 Mammalian Cell Selection: Neomycin
 Vector: pCMV6-AC-GFP (PS100010)
 E. coli Selection: Ampicillin (100 ug/mL)
 ORF Nucleotide Sequence: >RG206942 representing NM_178836
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGACGGTTGAGTTGGCAGGTGGCGGCCGGCGGCTGTGGCCTGGCTCTGACTCTGGAGGCGCTGC
 CTTGGGTGCTGCGCTGGCTGCGGTCCAGGCGGCCGGCGCCGGCGCGAGGCGCCGTTCTCCCGTCTCA
 GGTGACCTGTACCGAGGCCCTGCTGCGGGCTCCGGCGCGGAGCTGGCCGAGCTCCCGAGGGCTGCCCC
 TCGGCCCTGCCCCACGGCGAGAGCGCGTAAGCCGCTGCTGCGTGCCCTGCTGGCCGCCCGCCAGCC
 TGGATCTCTGCCTGTTTCGCTTCTCCAGCCCGAGCTGGGCCACGCCGTGCAGTTGCTGCACCAGCGTGG
 GGTGCGAGTGCGGGTTCGTCACCGACTGCGACTACATGGCCCTCAACGGCTCGCAAATCGGTCTGCTGCGC
 AAGGCAGGGATCCAGGTCCGGCACGATCAAGACCCAGGCTACATGCATCACAAGTTTGCCATCGTGGACA
 AGAGGGTCTCATCACTGGCTCGCTCAACTGGACCACGCAAGCCATCCAGAAACAAGGGAGAATGTTCT
 CATCACGGAGGACGACGAGTACGTGCGGCTTTTCTGGAAGAATTTGAGCGCATCTGGGAACAGTTTAAC
 CCTACAAAGTATACCTTTTTCCACAAAGAAAAGTACGGAAGCTGTGCCCCACCTGTCTCCAGAGCTG
 GAGGGAGATTGCTTTCATGGCACAGAACTTGGCGCACCTCCAGCGAAAGCCAAACC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG206942 representing NM_178836
 Red=Cloning site Green=Tags(s)

MGRLSWQVAAAAAVGLAL TLEALPWVLRWLR SRRRRPRREAPFFPSQVTCTEALLRAPGAELAE LPEGCP
 CGLPHGESALSRLLRALLAARASLDLCLFAFSSPQLGHAVQLLHQRGVRVRVVTDCDYMALNGSQIGLLR
 KAGIQVRHDQDPGYMHKFAIVDKRVLITGSLNWT TQAIQNNRENVLIT EDD EYVRLFLEEFERIWEQFN
 PTKYTFFPPKKSHGSCAPPVSRAGGRLLSWHRTCGTSSSESQT

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_178836

ORF Size: 756 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.

RefSeq: [NM_178836.2](#), [NP_849158.1](#)

RefSeq Size: 2577 bp

RefSeq ORF: 759 bp

Locus ID: 201164

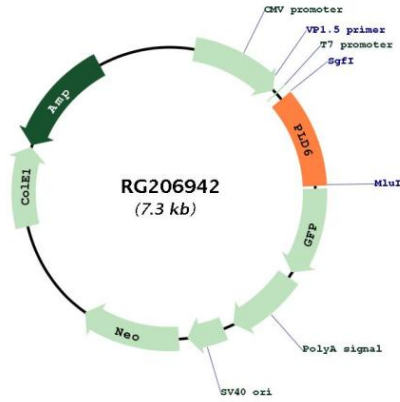
UniProt ID: [Q8N2A8](#)

Cytogenetics: 17p11.2

Protein Families: Transmembrane

Gene Summary: Endonuclease that plays a critical role in PIWI-interacting RNA (piRNA) biogenesis during spermatogenesis. piRNAs provide essential protection against the activity of mobile genetic elements (By similarity). piRNA-mediated transposon silencing is thus critical for maintaining genome stability, in particular in germline cells when transposons are mobilized as a consequence of wide-spread genomic demethylation (By similarity). Has been proposed to act as a cardiolipin hydrolase to generate phosphatidic acid at mitochondrial surface (By similarity). Although it cannot be excluded that it can act as a phospholipase in some circumstances, it should be noted that cardiolipin hydrolase activity is either undetectable in vitro, or very low (PubMed:21397848). In addition, cardiolipin is almost exclusively found on the inner mitochondrial membrane, while PLD6 localizes to the outer mitochondrial membrane, facing the cytosol (PubMed:21397848). Has been shown to be a backbone-non-specific, single strand-specific nuclease, cleaving either RNA or DNA substrates with similar affinity. Produces 5' phosphate and 3' hydroxyl termini, suggesting it could directly participate in the processing of primary piRNA transcripts (By similarity). Also acts as a regulator of mitochondrial shape through facilitating mitochondrial fusion (PubMed:17028579, PubMed:26711011).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG206942