

## Product datasheet for **MG216594**

### **Pld6 (NM\_183139) Mouse Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Pld6 (NM\_183139) Mouse Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** Pld6  
**Synonyms:** 4933433K01Rik; Gm10; mitoPLD; mZuc; Zuc  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >MG216594 representing NM\_183139  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGATCGCC

ATGGGGCGCTCGAGTTGGCGGTTGGTGTTCGCGGCTGGTGC GGCTCGCGCTGGCCCTAGAGGCACTGC  
CGTGGCTGATGCGTTGGCTGCTGGCTGGGCGGCGGCCAAGGCGCGAGGTGCTCTTCTTCCCTCACAGGT  
GACCTGCACCGAGGCTTTACTGCAGGCCCCAGGGTTGCCTCCCGGCCCTCGGGCTGCCCGTGTAGCCTC  
CCCCACAGCGAGAGTTCAGTGCAGCGCCTGCTGCGCGCGCTGTTGGCCGCCGCTCCAGCTTGGAGCTCT  
GCCTCTTCGCTTCTCCAGCCCGCAGCTGGGGCGTGCAGTGCAGCTGCTGCATCAGCGTGGGGTGC GCGT  
GCGGGTCATCACTGACTGCGACTACATGGCCCTCAACGGCTCTCAGATCGGCCTGCTGCGCAAGGGATAC  
AGGTACGGCACGACCAGGACC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >MG216594 representing NM\_183139  
Red=Cloning site Green=Tags(s)

MGRSSWRLVFAAGAGLALALEALPWLMRWLLAGRRPRREVLFFPSQVTCTEALLQAPGLPPGPSGCPCL  
 PHSESSLRLLRALLAARSSLELCLFAFSSPQLGRAVQLLHQRGVRVRVITDCDYMALNGSQIGLLRKG  
 RYGTTRT

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI



[View online »](#)

## Cloning Scheme:



ACCN: NM\_183139

ORF Size: 441 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM\\_183139.2](#), [NP\\_898962.2](#)

RefSeq Size: 1769 bp

RefSeq ORF: 444 bp

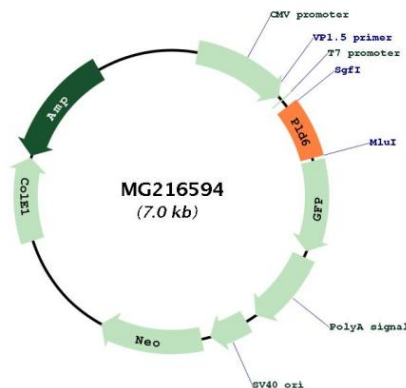
**Locus ID:** 194908

**UniProt ID:** [Q5SWZ9](#)

**Cytogenetics:** 11 B1.3

**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. 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 (PubMed:23064227, PubMed:23064230). Has been proposed to act as a cardiolipin hydrolase to generate phosphatidic acid at mitochondrial surface (PubMed:21397847, PubMed:21397848). 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. In addition, cardiolipin is almost exclusively found on the inner mitochondrial membrane, while PLD6 localizes to the outer mitochondrial membrane, facing the cytosol. Has been shown to be a backbone-non-specific, single strand-specific nuclease, cleaving either RNA or DNA substrates with similar affinity (PubMed:23064227, PubMed:23064230). Produces 5' phosphate and 3' hydroxyl termini, suggesting it could directly participate in the processing of primary piRNA transcripts (PubMed:23064230). Also acts as a regulator of mitochondrial shape through facilitating mitochondrial fusion (By similarity).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MG216594