

## Product datasheet for **MR216594L4V**

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

#### **Product data:**

Product Type:	Lentiviral Particles
Product Name:	Pld6 (NM_183139) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Pld6
Synonyms:	4933433K01Rik; Gm10; mitoPLD; mZuc; Zuc
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_183139
ORF Size:	444 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR216594).
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. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_183139.2</a> , <a href="#">NP_898962.2</a>
RefSeq Size:	1769 bp
RefSeq ORF:	444 bp
Locus ID:	194908
UniProt ID:	<a href="#">Q5SWZ9</a>
Cytogenetics:	11 B1.3


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**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]