

## Product datasheet for MR222848L3

### Piwil1 (NM\_021311) Mouse Tagged Lenti ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Piwil1 (NM_021311) Mouse Tagged Lenti ORF Clone
Tag:	Myc-DDK
Symbol:	Piwil1
Synonyms:	MIWI
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR222848).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF.

ACCN:	NM_021311
ORF Size:	2589 bp



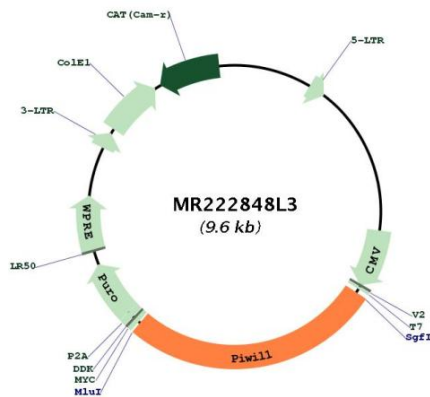
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<b>OTI Disclaimer:</b>	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), 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>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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>RefSeq:</b>	<a href="#">NM_021311.3</a> , <a href="#">NP_067286.1</a>
<b>RefSeq Size:</b>	3944 bp
<b>RefSeq ORF:</b>	2589 bp
<b>Locus ID:</b>	57749
<b>UniProt ID:</b>	<a href="#">Q9JMB7</a>
<b>Cytogenetics:</b>	5 67.86 cM

**Gene Summary:**

Endoribonuclease that plays a central role in postnatal germ cells by repressing transposable elements and preventing their mobilization, which is essential for the germline integrity (PubMed:11578866, PubMed:22121019, PubMed:21237665). Acts via the piRNA metabolic process, which mediates the repression of transposable elements during meiosis by forming complexes composed of piRNAs and Piwi proteins and governs the methylation and subsequent repression of transposons (PubMed:11578866, PubMed:22121019, PubMed:21237665). Directly binds methylated piRNAs, a class of 24 to 30 nucleotide RNAs that are generated by a Dicer-independent mechanism and are primarily derived from transposons and other repeated sequence elements (PubMed:11578866, PubMed:22121019, PubMed:21237665). Strongly prefers a uridine in the first position of their guide (g1U preference, also named 1U-bias) (PubMed:24757166). Not involved in the piRNA amplification loop, also named ping-pong amplification cycle (PubMed:22121019). Acts as an endoribonuclease that cleaves transposon messenger RNAs (PubMed:22121019). Besides their function in transposable elements repression, piRNAs are probably involved in other processes during meiosis such as translation regulation (PubMed:16938833). Probable component of some RISC complex, which mediates RNA cleavage and translational silencing (PubMed:16938833). Also plays a role in the formation of chromatoid bodies and is required for some miRNAs stability (PubMed:16787948). Required to sequester RNF8 in the cytoplasm until late spermatogenesis; RNF8 being released upon ubiquitination and degradation of PIWIL1 (PubMed:28552346).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR222848L3