

## Product datasheet for **MR220090L4V**

### **Mcm9 (NM\_027830) Mouse Tagged ORF Clone Lentiviral Particle**

#### **Product data:**

Product Type:	Lentiviral Particles
Product Name:	Mcm9 (NM_027830) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Mcm9
Synonyms:	9030408O17Rik; Gm235; Mcmdc1
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_027830
ORF Size:	3870 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR220090).
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_027830.2</a> , <a href="#">NP_082106.2</a>
RefSeq Size:	3873 bp
RefSeq ORF:	3873 bp
Locus ID:	71567
UniProt ID:	<a href="#">Q2KHI9</a>
Cytogenetics:	10 B3



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**Gene Summary:**

Component of the MCM8-MCM9 complex, a complex involved in the repair of double-stranded DNA breaks (DBSs) and DNA interstrand cross-links (ICLs) by homologous recombination (HR) (PubMed:23401855, PubMed:22771120). Required for DNA resection by the MRE11-RAD50-NBN/NBS1 (MRN) complex at double-stranded DNA breaks to generate ssDNA by recruiting the MRN complex to the repair site and by promoting the complex nuclease activity (By similarity). Probably by regulating the localization of the MNR complex, indirectly regulates the recruitment of downstream effector RAD51 to DNA damage sites including DBSs and ICLs (PubMed:22771120, PubMed:23401855). Acts as a helicase in DNA mismatch repair (MMR) following DNA replication errors to unwind the mismatch containing DNA strand (PubMed:22771120, PubMed:26300262). In addition, recruits MLH1, a component of the MMR complex, to chromatin (By similarity). The MCM8-MCM9 complex is dispensable for DNA replication and S phase progression (PubMed:21987787). Probably by regulating HR, plays a key role during gametogenesis (PubMed:21987787, PubMed:22771120). [UniProtKB/Swiss-Prot Function]