

Product datasheet for **MR218608L4V**

Gemin5 (NM_172558) Mouse Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	Gemin5 (NM_172558) Mouse Tagged ORF Clone Lentiviral Particle
Symbol:	Gemin5
Synonyms:	AA407055; AA407208; AI451603; BB194447; C330013N08
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_172558
ORF Size:	4506 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(MR218608).
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.
RefSeq:	NM_172558.3
RefSeq Size:	6226 bp
RefSeq ORF:	4509 bp
Locus ID:	216766
UniProt ID:	Q8BX17
Cytogenetics:	11 B1.3



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Gene Summary:

Required for the assembly of the SMN complex that plays a catalyst role in the assembly of small nuclear ribonucleoproteins (snRNPs), the building blocks of the spliceosome. Thereby, plays an important role in the splicing of cellular pre-mRNAs. Most spliceosomal snRNPs contain a common set of Sm proteins SNRPB, SNRPD1, SNRPD2, SNRPD3, SNRPE, SNRPF and SNRPG that assemble in a heptameric protein ring on the Sm site of the small nuclear RNA to form the core snRNP. In the cytosol, the Sm proteins SNRPD1, SNRPD2, SNRPE, SNRPF and SNRPG are trapped in an inactive 6S pICln-Sm complex by the chaperone CLNS1A that controls the assembly of the core snRNP. Dissociation by the SMN complex of CLNS1A from the trapped Sm proteins and their transfer to an SMN-Sm complex triggers the assembly of core snRNPs and their transport to the nucleus. GEMIN5 acts as the snRNA-binding protein of the SMN complex. Binds to the 7-methylguanosine cap of RNA molecules (By similarity). Binds to the 3' UTR of SMN1 mRNA and regulates its translation; does not affect mRNA stability (PubMed:25911097). May play a role in the regulation of protein synthesis via its interaction with ribosomes (By similarity).[UniProtKB/Swiss-Prot Function]