

#### OriGene Technologies, Inc.

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# Product datasheet for RR207782L4V

## Nsmce2 (NM\_001024876) Rat Tagged ORF Clone Lentiviral Particle

## **Product data:**

Product Type:	Lentiviral Particles
Product Name:	Nsmce2 (NM_001024876) Rat Tagged ORF Clone Lentiviral Particle
Symbol:	Nsmce2
Synonyms:	RGD1305156
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_001024876
ORF Size:	741 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RR207782).
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. <u>More info</u>
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:	<u>NM 001024876.1, NP 001020047.1</u>
RefSeq Size:	1072 bp
RefSeq ORF:	744 bp
Locus ID:	299957
UniProt ID:	<u>Q4V8A0</u>
Cytogenetics:	7q33



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Gene Summary:E3 SUMO-protein ligase component of the SMC5-SMC6 complex, a complex involved in repair<br/>of DNA double-strand breaks by homologous recombination. Is not be required for the<br/>stability of the complex. The complex may promote sister chromatid homologous<br/>recombination by recruiting the SMC1-SMC3 cohesin complex to double-strand breaks. The<br/>complex is required for telomere maintenance via recombination and mediates sumoylation<br/>of shelterin complex (telosome) components. Acts as an E3 ligase mediating SUMO<br/>attachment to various proteins such as SMC6L1 and TRAX, the shelterin complex subunits<br/>TERF1, TERF2, TINF2 and TERF2IP, and maybe the cohesin components RAD21 and STAG2.<br/>Required for recruitment of telomeres to PML nuclear bodies. SUMO protein-ligase activity is<br/>required for the prevention of DNA damage-induced apoptosis by facilitating DNA repair.<br/>Required for sister chromatid cohesion during prometaphase and mitotic progression (By<br/>similarity).[UniProtKB/Swiss-Prot Function]

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