

C57BL/6NJ-Prim1^{em1(IMPC)J}/MmjaxMMRRC Stock No: **42367-JAX** **Coisogenic, Endonuclease-Mediated Mutation**[ORDER AT MMRRC JAX](#)[Email](#) [Download PDF](#) [Help](#)

This CRISPR-generated knock-out mutant of the DNA primase, p49 subunit (*Prim1*) gene has been generated by the Knockout Mouse Phenotyping Program (KOMP²) at The Jackson Laboratory. *Prim1* encodes an enzyme that is involved in the synthesis of small RNA primers for the Okazaki fragments made during discontinuous DNA replication.

[R E A D M O R E +](#)

GENETIC OVERVIEW

Genetic Background**Generation**[005304 C57BL/6NJ](#)***Prim1^{em1(IMPC)J}*****Alele Type****Gene Symbol****Gene Name**Endonuclease-mediated
(Null/Knockout)*Prim1*

DNA primase, p49 subunit

[V I E W G E N E T I C S](#)

RESEARCH APPLICATIONS

[V I E W A L L R E S E A R C H A P P L I C A T I O N S](#)

⊖ Detailed Description

This strain was generated by the Knockout Mouse Phenotyping Program ([KOMP²](#)) at The Jackson Laboratory using CRISPR technology. The targeted gene, DNA primase, p49 subunit (*Prim1*), encodes an enzyme that is involved in the synthesis of small RNA primers for the Okazaki fragments made during discontinuous DNA replication. The alteration resulted in the deletion of 278 bp, which should result in the deletion of exon 2, amino acid change after residue 34, and early termination 21 amino acids later. As mice are characterized, phenotype data will be accessible on the [International Mouse Phenotyping Consortium](#) website.

+ Development

+ Control Suggestions

⊖ Genetics

+ *Prim1^{em1(IMPC)J}*

⊖ Disease/Phenotype

+ Disease Terms

+ Research Areas By Phenotype

+ Mammalian Phenotype Terms by Genotype

+ References

⊖ Technical Support

C O N T A C T T E C H N I C A L S U P P O R T

Genotyping Protocols

End Point Analysis:[Smcx/Smcy-PROBE](#)

Probe:[Prim1 Probe](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

Heterozygotes may be bred to C57BL/6NJ (Stock No. [005304](#)) or wildtype littermates. As mice are characterized, data related to viability and fertility will be provided on the [International Mouse Phenotyping Consortium](#) website.

Additional Breeding and Husbandry Support

Citation

When using the C57BL/6NJ-*Prim1*^{em1(IMPC)J}/Mmjax mouse strain in a publication, please [cite the originating article\(s\)](#) and include MMRRC stock #42367 in your Materials and Methods section.

Animal Health Reports

[Facility Barrier Level Descriptions](#)

Production of mice from cryopreserved embryos or sperm occurs in a maximum barrier room, [G200](#)

THE JACKSON LABORATORY'S GENOTYPE PROMISE

The Jackson Laboratory has rigorous genetic quality control and mutant gene genotyping programs to ensure the genetic background of JAX® Mice strains as well as the genotypes of strains with identified molecular mutations. JAX® Mice strains are only made available to researchers after meeting our standards. However, the phenotype of each strain may not be fully characterized and/or captured in the strain data sheets. **Therefore, we cannot guarantee a strain's phenotype will meet all expectations.** To ensure that JAX® Mice will meet the needs of individual research projects or when requesting a strain that is new to your research, we suggest ordering and performing tests on a small number of mice to determine suitability for your particular project. We do not guarantee [breeding performance](#) and therefore suggest that investigators order more than one breeding pair to avoid delays in their research.

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Q U E S T I O N S A B O U T T E R M S O F U S E

ADDITIONAL USE RESTRICTIONS APPLY

The use of this mouse model is subject to the terms and conditions of the Limited License from The Broad Institute.

The use of this mouse model is subject to the terms and conditions of the Limited Use Label License from Caribou Biosciences, Inc.

LICENSING INFORMATION

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