

B6;SJL-Akap6^{tm1.1Mskf}/Mmjax
MMRRC Stock No: **37540-JAX** | mAKAP^{fl}

 Targeted Mutation

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These mAKAP6^{fl} mutant mice possess *loxP* sites flanking exon 9 of the A kinase (PRKA) anchor protein 6 (*Akap6*) gene, a scaffold protein located in the nuclear envelope of striated myocytes. This strain may be useful for studying cardiac hypertrophy and heart failure.

Donating Investigator

Michael Kapiloff, Stanford University

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GENETIC OVERVIEW

Genetic Background

Generation

Akap6^{tm1.1Mskf}

Allele Type

Targeted (Conditional ready (e.g. floxed), No functional change)

Gene Symbol

Akap6

Gene Name

A kinase (PRKA) anchor protein 6

VIEW GENETICS

RESEARCH APPLICATIONS

Research Tools

VIEW ALL RESEARCH APPLICATIONS

Details

Detailed Description

These mAKAP6^{fl} mutant mice possess *loxP* sites flanking exon 9 of the A kinase (PRKA) anchor protein 6 (*Akap6*) gene. *Akap6* is a scaffold protein located in the nuclear envelope of striated myocytes; it functions as nodal organizer of hypertrophic signaling. Mice that are homozygous for this allele are viable, fertile, and normal in size. When bred to mice that express tissue-specific Cre recombinase, resulting offspring will have exon 9 deleted in the cre-expressing tissues. This strain may be useful for studying cardiac hypertrophy and heart failure.

When bred to mice carrying Tg(Myh6-cre/Esr1*)1Jmk, tamoxifen-induced Cre-mediated recombination and stress by transverse aortic constriction results in a cardiac protective effect when compared to controls subjected to the same regime.

Development

Control Suggestions

Selected References

Genetics

Akap6^{tm1.1Mskf}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

Genotyping Protocols

Probe: [Generic Cre Probe](#)

Probe: [Generic FLP](#)

Standard PCR: [Akap6](#)

Standard PCR: [Generic Neo](#)

Probe: [Generic Neo](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

While maintaining a live colony, these mice are bred as homozygotes.

[Additional Breeding and Husbandry Support](#)

Mating System

Heterozygote x Heterozygote

Citation

When using the mAKAP^{fl} mouse strain in a publication, please [cite the originating article\(s\)](#) and include MMRRC stock #37540 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](#)

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LICENSING INFORMATION

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