

A.B6-Kit^{W-v}/BeiMmjaxMMRRC Stock No: **34764-JAX** | viable dominant spotting Congenic, Spontaneous Mutation[ORDER AT MMRRC JAX](#)[Email](#) [Download PDF](#) [Help](#)

Kit^{W-v} homozygotes resemble *Kit^W* homozygotes in color, anemia, and germ cells, but many of them survive to maturity. Mice on this background exhibit poor viability, mast cell defects, decreased airway hyperresponsiveness and sterility.

Donating Investigator

David Beier, Harvard

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

GENETIC OVERVIEW

Genetic Background

Generation

Kit^{W-v}

Allele Type

Gene Symbol

Gene Name

Spontaneous

Kit

KIT proto-oncogene receptor tyrosine kinase

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

RESEARCH APPLICATIONS

Mouse/Human Gene Homologs

Research Tools

Cancer Research

Immunology, Inflammation and Autoimmunity Research

Neurobiology Research

Sensorineural Research

Reproductive Biology Research

Dermatology Research

[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](#)

Details

Detailed Description

Homozygote: *Kit* mice possess pleiotropic defects in pigment-forming cells, germ cells, RBC's and mast cells. In addition, they exhibit impaired resistance to parasitic infection and an intrinsic progenitor cell defect. *Kit^{W-v}* homozygotes resemble *Kit^W* homozygotes in color, anemia, and germ cells, but many of them survive to maturity. On the A/J background, the classic black-eyed albino phenotype cannot be used to assess genotype. The donating investigator reports that mice on this background exhibit poor viability, mast cell defects, decreased airway hyperresponsiveness and sterility. On the hybrid (C57BL/6 x A/J)F1 background, *Kit^{W-v}* homozygotes are viable and exhibit decreased airway hyperresponsiveness.

Heterozygote: Not evaluated. On the albino A/J background, coat color markings are not visible.

Development

Control Suggestions

Selected References

Genetics

Kit^{W-v}

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

Restriction Enzyme Digest:[Kit](#)

Pyrosequencing:[KitPYRO](#)

End Point Analysis:[KitAlternate1](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

While maintaining a live colony, these mice are bred as heterozygotes. Mice homozygous for the mutation are sterile.

[Additional Breeding and Husbandry Support](#)

Citation

When using the viable dominant spotting mouse strain in a publication, please [cite the originating article\(s\)](#) and include MMRRC stock #34764 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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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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