

B6.129S2-Aire^{tm1.1Doi}/J

Stock No: **004743** | Aire-

 Targeted Mutation

Live mice available in varying quantities. Ask Customer Service for details.

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Donating Investigator

Christophe Benoist, Joslin Diabetes Center

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GENETIC OVERVIEW

Genetic Background

Generation

[N12F2](#)
(2021-01-14 00:00:00)

Aire^{tm1.1Doi}

Allele Type

Targeted (Null/Knockout)

Gene Symbol

Aire

Gene Name

autoimmune regulator (autoimmune polyendocrinopathy candidiasis ectodermal dystrophy)

VIEW GENETICS

RESEARCH APPLICATIONS

VIEW ALL RESEARCH APPLICATIONS

BASE PRICE

Starting at:

\$278.00 Domestic price for female 4-week

556.00 Domestic price for breeder pair

V I E W P R I C E L I S T

Details

Detailed Description

Mice homozygous for the targeted allele are viable, normal in size and at birth do not display any gross physical or behavioral abnormalities. While a transcript may be generated from the targeted locus, a functional protein is not translated. Homozygous mice display a phenotype consistent with a broad defect in immunological tolerance induction. By four weeks of age histological analysis reveals lymphocytic infiltrates in some organs. Infiltrates become more prevalent as the mouse ages. Serum autoantibodies are detected by 3-6 months. The thymic medullary epithelial cell (MEC) number is doubled. Similarly, a near doubling in the numbers of activated/memory CD4^{hi} CD62L^{lo} T lymphocytes is observed. A loss or reduction in expression occurs for a substantial number of genes in MECs, an observation consistent with the targeted gene's role as a transcriptional activator. The Donating Investigator reports that homozygotes are not fertile (most homozygous females are sterile due to ovarian autoimmunity, homozygous males can only breed for a short time and are subfertile). This mutant mouse strain may be useful in studies related autoimmune disease and tolerance induction.

Development

Control Suggestions

Selected References

Genetics

Aire^{tm1.1Doi}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

[- 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

Standard PCR:[Aire Alternate 1](#)

[Genotyping resources and troubleshooting](#)

Dietary Information

LabDiet® 5K52 formulation (6% fat)

Breeding Considerations

When maintaining a live colony, these mice can be bred as heterozygotes. The Donating Investigator reports that homozygotes are not fertile (most homozygous females are sterile due to ovarian autoimmunity, homozygous males can only breed for a short time and are subfertile).

[Additional Breeding and Husbandry Support](#)

Mating System

Heterozygote x Heterozygote

Citation

When using the Aire- mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #004743 in your Materials and Methods section.

Animal Health Reports

[Facility Barrier Level Descriptions](#)

 [AX11 \(Maximum\)](#)

[- Pricing & Availability](#)



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Available

Domestic | International

Pricing effective for USA, Canada and Mexico shipping destinations

LIVE MOUSE

AGE

SEX

GENOTYPE

PRICE

4 weeks	SEX	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
4 weeks	Female	Homozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Homozygous for Aire ^{tm1.1Doi}	\$278.00
4 weeks	Female	Wild-type for Aire ^{tm1.1Doi}	\$78.51
	Male	Wild-type for Aire ^{tm1.1Doi}	\$78.51
5 weeks	Female	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
5 weeks	Female	Homozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Homozygous for Aire ^{tm1.1Doi}	\$278.00
5 weeks	Female	Wild-type for Aire ^{tm1.1Doi}	\$78.51
	Male	Wild-type for Aire ^{tm1.1Doi}	\$78.51
6 weeks	Female	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
6 weeks	Female	Homozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Homozygous for Aire ^{tm1.1Doi}	\$278.00
6 weeks	Female	Wild-type for Aire ^{tm1.1Doi}	\$78.51
	Male	Wild-type for Aire ^{tm1.1Doi}	\$78.51
7 weeks	Female	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
7 weeks	Female	Homozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Homozygous for Aire ^{tm1.1Doi}	\$278.00
7 weeks	Female	Wild-type for Aire ^{tm1.1Doi}	\$78.51
	Male	Wild-type for Aire ^{tm1.1Doi}	\$78.51
8 weeks	Female	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
8 weeks	Female	Homozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Homozygous for Aire ^{tm1.1Doi}	\$278.00
8 weeks	Female	Wild-type for Aire ^{tm1.1Doi}	\$78.51
	Male	Wild-type for Aire ^{tm1.1Doi}	\$78.51
9 weeks	Female	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
9 weeks	Female	Homozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Homozygous for Aire ^{tm1.1Doi}	\$278.00
9 weeks	Female	Wild-type for Aire ^{tm1.1Doi}	\$78.51
	Male	Wild-type for Aire ^{tm1.1Doi}	\$78.51

10 weeks	SEX	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
10 weeks	Female	Homozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Homozygous for Aire ^{tm1.1Doi}	\$278.00
10 weeks	Female	Wild-type for Aire ^{tm1.1Doi}	\$78.51
	Male	Wild-type for Aire ^{tm1.1Doi}	\$78.51
11 weeks	Female	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
11 weeks	Female	Homozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Homozygous for Aire ^{tm1.1Doi}	\$278.00
11 weeks	Female	Wild-type for Aire ^{tm1.1Doi}	\$78.51
	Male	Wild-type for Aire ^{tm1.1Doi}	\$78.51
12 weeks	Female	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Heterozygous for Aire ^{tm1.1Doi}	\$278.00
12 weeks	Female	Homozygous for Aire ^{tm1.1Doi}	\$278.00
	Male	Homozygous for Aire ^{tm1.1Doi}	\$278.00
12 weeks	Female	Wild-type for Aire ^{tm1.1Doi}	\$78.51
	Male	Wild-type for Aire ^{tm1.1Doi}	\$78.51

BREEDER PAIR		
SEX	GENOTYPE	PRICE
Female	Heterozygous for Aire ^{tm1.1Doi}	\$556.00
Male	Heterozygous for Aire ^{tm1.1Doi}	

RELATED PRODUCTS AND SERVICES		
Frozen Mouse Embryo	B6.129S2-Aire<tm1.1Doi>/J Frozen Embryos	\$2595.00

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