

NOD.Cg-Kit^{W-41J} Tyr + Prkdc^{scid} Il2rg^{tm1Wjl} /ThomJ

Stock No: **026622** | NBSGW

 Congenic, Spontaneous Mutation, Targeted Mutation

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Also Known As:NBSGW

NBSGW mice support engraftment of human hematopoietic stem cells without irradiation. They are suitable for use in applications related to xenotransplantation.

Donating Investigator

James A. Thomson, The University of Wisconsin

READ MORE +

GENETIC OVERVIEW

Genetic Background

Generation

[Contact Technical Support](#)
(2020-11-05 00:00:00)

Kit^{W-41J}

Alele Type

Spontaneous

Gene Symbol

Kit

Gene Name

KIT proto-oncogene receptor tyrosine kinase

Prkdc^{scid}

Alele Type	Gene Symbol	Gene Name
Spontaneous	<i>Prkdc</i>	protein kinase, DNA activated, catalytic polypeptide

Il2rg^{tm1Wjl}

Alele Type	Gene Symbol	Gene Name
Targeted (Null/Knockout)	<i>Il2rg</i>	interleukin 2 receptor, gamma chain

Tyr⁺

Alele Type	Gene Symbol	Gene Name
Not Applicable	<i>Tyr</i>	tyrosinase

V I E W G E N E T I C S

RESEARCH APPLICATIONS

Virology Research
Dermatology Research
Mouse/Human Gene Homologs
Research Tools
Cancer Research
Internal/Organ Research
Immunology, Inflammation and Autoimmunity Research
Sensorineural 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

BASE PRICE

Starting at:

\$248.32 Domestic price for male 3-week

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

Details

Detailed Description

Xenograft NBSGW mice exhibit enhanced human hematopoietic chimerism in peripheral blood, bone marrow, and spleen when compared to non-irradiated engrafted NSG mice, with a level of chimerism similar to that seen in irradiated NSG mice. Chimerism in the peripheral blood of engrafted NBSGW mice was found to be 9-fold higher than chimerism exhibited by engrafted NSG mice. Serial transplantation of human hematopoietic stem cells is also supported with evidence of secondary graft expansion in the secondary recipients. Mice are mottled grey and white coat color due to the homozygous wildtype *Tyr* (tyrosinase) allele. While establishing the strain, mice that were homozygous for the wildtype *Tyr* (tyrosinase) allele were selected for further breeding to eliminate the albino coat color from the colony (allows easier visual phenotyping of *Kit*^{W41J} allele). Mice that are homozygous for all three of these mutant alleles are viable and fertile.

These NBSGW mice may be expected to have a similar phenotype as the NSGW41 model (Stock No. [026497](#)).

Development

Control Suggestions

Selected References

Genetics

Kit^{W41J}

Prkdc^{scid}

Il2rg^{tm1Wjl}

Tyr⁺

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols

Pyrosequencing:[Tyr](#)

Pyrosequencing:[Kit](#)

End Point Analysis:[Tyr c-EP](#)

Probe:[Il2rg-PROBE](#)

End Point Analysis:[Prkdc End Point](#)

End Point Analysis:[Kit-EP](#)

Sanger sequencing:[Tyr-SEQ](#)

[Genotyping resources and troubleshooting](#)

Breeding Considerations

[This strain is a good breeder.](#)

When maintaining a live colony, these mice can be bred as homozygotes for the *Kit*^{W-41J}, *Prkdc*^{scid}, *Il2rg*^{tm1Wjl} alleles (males would be hemizygous for the X-linked *Il2rg*^{tm1Wjl}).

[Additional Breeding and Husbandry Support](#)

Mating System

Females homozygous for the *Kit*^{W-41J}, *Prkdc*^{scid}, *Il2rg*^{tm1Wjl} alleles x Males homozygous for the *Kit*^{W-41J}, *Prkdc*^{scid}, and hemizygous for the *Il2rg*^{tm1Wjl} alleles

Appearance

Mice are mottled grey and white.

Citation

When using the NBSGW mouse strain in a publication, please [cite the originating article\(s\)](#) and include JAX stock #026622 in your Materials and Methods section.

Animal Health Reports

[Facility Barrier Level Descriptions](#)

 [AX27 \(Maximum\)](#)

Pricing & Availability



Readily Available

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Domestic Pricing for



Commercial & For-Profit

Not-For-Profit & Academic

LIVE MOUSE

AGE	SEX	GENOTYPE			PRICE
3 weeks	Female	Homozygous for Kit ^{W-41J}	Homozygous for Prkdc ^{scid}	Homozygous for Il2rg ^{tm1Wjl}	\$288.43
3 weeks	Male	Homozygous for Kit ^{W-41J}	Homozygous for Prkdc ^{scid}	Hemizygous for Il2rg ^{tm1Wjl}	\$248.32
4 weeks	Female	Homozygous for Kit ^{W-41J}	Homozygous for Prkdc ^{scid}	Homozygous for Il2rg ^{tm1Wjl}	\$291.57
4 weeks	Male	Homozygous for Kit ^{W-41J}	Homozygous for Prkdc ^{scid}	Hemizygous for Il2rg ^{tm1Wjl}	\$250.92
5 weeks	Female	Homozygous for Kit ^{W-41J}	Homozygous for Prkdc ^{scid}	Homozygous for Il2rg ^{tm1Wjl}	\$291.57
5 weeks	Male	Homozygous for Kit ^{W-41J}	Homozygous for Prkdc ^{scid}	Hemizygous for Il2rg ^{tm1Wjl}	\$250.92
6 weeks	Female	Homozygous for Kit ^{W-41J}	Homozygous for Prkdc ^{scid}	Homozygous for Il2rg ^{tm1Wjl}	\$296.72
6 weeks	Male	Homozygous for Kit ^{W-41J}	Homozygous for Prkdc ^{scid}	Hemizygous for Il2rg ^{tm1Wjl}	\$256.07
7 weeks	Female	Homozygous for Kit ^{W-41J}	Homozygous for Prkdc ^{scid}	Homozygous for Il2rg ^{tm1Wjl}	\$301.87
7 weeks	Male	Homozygous for Kit ^{W-41J}	Homozygous for Prkdc ^{scid}	Hemizygous for Il2rg ^{tm1Wjl}	\$261.22
8 weeks	Female	Homozygous for Kit ^{W-41J}	Homozygous for Prkdc ^{scid}	Homozygous for Il2rg ^{tm1Wjl}	\$307.02
8 weeks	Male	Homozygous for Kit ^{W-41J}	Homozygous for Prkdc ^{scid}	Hemizygous for Il2rg ^{tm1Wjl}	\$266.37

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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

Use of MICE by non-profits requires a [Material Transfer Agreement \(MTA\)](#) and for-profit entities require a [license](#).

LICENSING INFORMATION

Phone: 207-288-6470

Email: TechTran@jax.org

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By Allele

By Gene

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