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**NOD.Cg-Rag1<sup>tm1Mom</sup> Il2rg<sup>tm1Wjl</sup>/Sz - Mouse Strain RES212****Mouse Information**

<b>Common Name:</b>	NOD.Cg-Rag1 <sup>tm1Mom</sup> Il2rg <sup>tm1Wjl</sup> /Sz
<b>MGI Official Name:</b>	NOD.Cg-Rag1 <sup>tm1Mom</sup> Il2rg <sup>tm1Wjl</sup> /Sz
<b>Description:</b>	Backcrossing of the Rag1 null allele onto the NOD/Lt strain background (NOD-Rag1 <sup>null</sup> mice) provided a radio-resistant and longer-lived model for human-cell engraftment. Mutations in X-chromosome-linked Il2rg gene cause X-linked severe combined immunodeficiency (XSCID). Immunodeficient NOD-Rag1 <sup>null</sup> Il2rg <sup>null</sup> mice tolerated much higher levels of irradiation conditioning than did NOD-Prkdc <sup>scid</sup> Il2rg <sup>null</sup> mice.
<b>Categories:</b>	HUMANE

**Genetic Alterations****1) Targeted Mutagenesis**

<b>Type of Allele</b>	Global Null				
<b>Targeted Gene</b>	recombination activating gene 1 (Rag1 - <a href="#">NCBI GeneID:19373</a> )				
<b>Targeted Allele</b>	<i>Not provided</i> (Rag1 <sup>tm1Mom</sup> - <a href="#">MGI:1857241</a> )				
<b>Description of Targeting Vector</b>	<i>Not provided</i>				
<b>Targeting Vector Genbank File</b>	<i>Not provided</i>				
<b>Citations</b>	<table border="1"> <thead> <tr> <th>PubMedID</th> <th>Citation</th> </tr> </thead> <tbody> <tr> <td><a href="#">18785974</a></td> <td><a href="#">Non-obese diabetic-recombination activating gene-1 (NOD-Rag1 null) interleukin (IL)-2 receptor common gamma chain (IL2r gamma null) null mice: a radioresistant model for human lymphohaematopoietic engraftment.</a> (2008) <i>Clin Exp Immunol</i> <b>154</b>: 270-84 (Added 2009-04-21 09:46:49)</td> </tr> </tbody> </table>	PubMedID	Citation	<a href="#">18785974</a>	<a href="#">Non-obese diabetic-recombination activating gene-1 (NOD-Rag1 null) interleukin (IL)-2 receptor common gamma chain (IL2r gamma null) null mice: a radioresistant model for human lymphohaematopoietic engraftment.</a> (2008) <i>Clin Exp Immunol</i> <b>154</b> : 270-84 (Added 2009-04-21 09:46:49)
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**2) Targeted Mutagenesis**

<b>Type of Allele</b>	Global Null				
<b>Targeted Gene</b>	interleukin 2 receptor, gamma chain (Il2rg - <a href="#">NCBI GeneID:16186</a> )				
<b>Targeted Allele</b>	<i>Not provided</i> (Il2rg <sup>tm1Wjl</sup> - <a href="#">MGI:1857455</a> )				
<b>Description of Targeting Vector</b>	<i>Not provided</i>				
<b>Targeting Vector Genbank File</b>	<i>Not provided</i>				
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**Strain Information**

<b>Strain Type:</b>	Congenetic Strain
<b>Chimera/Founder Genetic Background:</b>	Not provided

**Access Status**

 This resource is publicly viewable.

**Request this Resource**

 Request from a repository


Primary contributor: [Shultz Lab](#)

Co-contributed by:

- [Greiner Lab](#)
- [Herrera Lab](#)

**Resource Tags**


mouse, mouse strain, NOD, NOD.Cg-Rag1<sup>tm1Mom</sup> Il2rg<sup>tm1Wjl</sup>/Sz, RAG

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**Resource History & Actions**

Approved on Dec 21, 2007  
Last modified on Apr 13, 2015

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**Related resources****BCBC**

*No matching resources*

**Other Consortia**

*No matching resources*

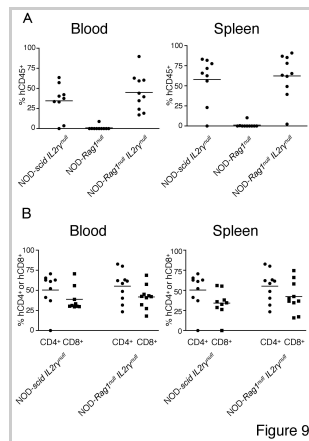
Data courtesy of [dkCOIN](#). Only public resources are displayed.

**Current Genetic Background:** Not provided (date recorded: Not provided)

**Strain Description:** Not provided

## Associated Images

### Image 1



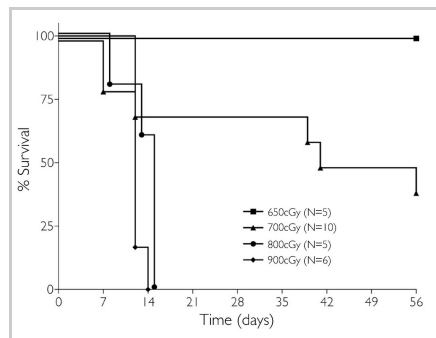
#### Description:

Human RBMC engraftment. Three indicated stocks of immunodeficient mice were injected intravenously with  $20 \times 10^6$  human peripheral blood mononuclear cells (PBMC) and assessed for human cell engraftment in the blood four weeks later. Symbols represent individual animals. Bars represent the mean percentage engraftment.

#### Reference:

18785974

### Image 2



#### Description:

Cohorts of NOD-Rag1null IL2γnull mice were treated with varying doses of whole body irradiation and their survival determined. (survival)

#### Reference:

18785974

## Repositories

### Herrera Lab

Request this resource

**Stock #:** Not provided

**Availability Notes:** Not provided

## Contact Information

### Preferred Contact

<b>Name</b>	Leonard Shultz
<b>Institution</b>	The Jackson Laboratory
<b>Phone</b>	207-288-6405
<b>Email</b>	<a href="mailto:lenny.shultz@jax.org">lenny.shultz@jax.org</a>

## Associated Publications

No publications associated

## Comments

There are no comments for this entry.

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