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NOD-Rag1^{null}Prf1^{null} - Mouse Strain RES1421**Mouse Information**

Common Name:	NOD-Rag1 ^{null} Prf1 ^{null}
MGI Official Name:	NOD.Cg-Rag1 ^{tm1Mom} Prf1 ^{tm1Sdz/SzJ}
Description:	Mice that are homozygous for both targeted mutations are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities when housed under specific pathogen free conditions. These double homozygote mutant mice have no mature T or B lymphocytes, no detectable NK cell cytotoxic activity, and lack serum immunoglobulin. The number of nucleated spleen cells is significantly reduced in double mutant mice, when compared to the single homozygote, NOD.129S7(B6)-Rag1 ^{tm1Mom} /J (Stock No. 003729). Although an increased number of DX5+CD122+ NK cells are found in the spleens of double mutants, these NK cells have impaired cytotoxic activity. The disruption of Prf1 ablates NK cell cytotoxic activity resulting in increased engraftment levels over that observed with Stock No. 003729. All mutant mice develop thymic lymphomas. This double mutant mouse strain may be useful in studies involving engraftment of human hematolymphoid cells.
Categories:	HUMANE

Genetic Alterations

1) Targeted Mutagenesis	
Type of Allele	Global Null
Targeted Gene	recombinant activating gene 1 (Rag1 - NCBI GeneID:19373)
Targeted Allele	<i>Not provided</i> (MGI:97848)
Description of Targeting Vector	<i>Not provided</i>
Targeting Vector Genbank File	<i>Not provided</i>
Citations	Not Available
2) Targeted Mutagenesis	
Type of Allele	Global Null
Targeted Gene	Perforin 1 (Pore forming protein) (Prf1 - NCBI GeneID:18646)
Targeted Allele	<i>Not provided</i> (MGI:97551)
Description of Targeting Vector	<i>Not provided</i>
Targeting Vector Genbank File	<i>Not provided</i>
Citations	Not Available


Strain Information

Strain Type:	Congenic Strain
Chimera/Founder Genetic Background:	Not provided
Current Genetic Background:	Not provided (date recorded: Not provided)
Strain Description:	Not provided


Associated Images

Image 1

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-Rag1^{null}Prf1^{null}

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 Read more about tags

Resource History & Actions

Approved on Apr 20, 2009
Last modified on Apr 20, 2009

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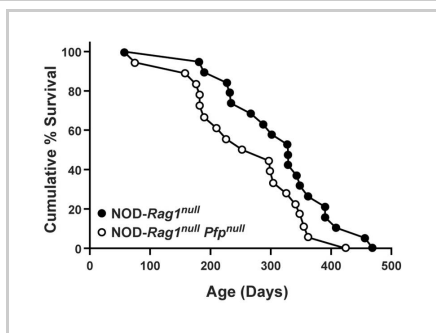
Related resources**BCBC**

No matching resources

Other Consortia

No matching resources

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

**Description:**

Cumulative percent survival of NOD-Rag1^{null} Prf1^{null} mice. 8 female and 10 male mice were monitored weekly from 4 weeks of age. (survival)

Reference:

14557749

Repositories

The Jackson Laboratory

No URL supplied for repository

Stock #: Not provided

Availability Notes: Not provided

Contact Information

Preferred Contact


Name	Leonard Shultz
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Associated Publications

No publications associated

Comments

There are no comments for this entry.

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