These NOD transgenic mice exhibit an increase in the total numbers of splenic B-lymphocytes and delay of diabetes onset in females.

Donating Investigator
Dr. David Serreze, The Jackson Laboratory
Details

Detailed Description

NOD.B6-Tg(IghelMD4)4Ccg/DvsJ (commonly referred to as NOD.IgHEL) mice are viable, fertile, normal in size, and do not display any gross physical or behavioral abnormalities. The transgene encodes IgM and IgD molecules specific for the pancreatic beta cell-irrelevant Hen Egg Lysozyme (HEL) protein. NOD transgenic mice have a 2-fold increase in the total numbers of splenic B-lymphocytes when compared to NOD wildtype mice, a value that is comparable to that seen in B6 mice. The total number of CD4⁺ and CD8⁺ T-lymphocytes did not differ significantly between NOD transgenic and NOD wildtype mice. Ninety-nine percent of splenic B-lymphocytes express the transgenic IgM⁺; however 8% of the B-lymphocytes from transgenic mice escaped allelic exclusion, and express endogenous IgM⁺ molecules. Diabetes onset in NOD.IgHEL females is significantly delayed, although the final incidence at 30 weeks of age did not differ significantly compared to wildtype controls.

Donating investigators report that the transgene integrated on Chromosome 17.

This strain may be used to study B-cell selection as it relates to Type 1 Diabetes.

Development

Expression Data

Control Suggestions

Selected References

Genetics

Tg(IghelMD4)4Ccg

Disease/Phenotype
Genotyping Protocols
Standard PCR: 006345 MIT markers
Standard PCR: Tg(IghelMD4)4Ccg
Genotyping resources and troubleshooting

Appearance
pink-eyed, albino
Related Genotype: A/A Tyr^c/Tyr^c

Citation
When using the NOD.IgHEL mouse strain in a publication, please cite the originating article(s) and include JAX stock #006345 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

Pricing & Availability

Cryo Recovery

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.
CRYORECOVERY - DOMESTIC PRICING

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<td>Cryo Recovery &gt;</td>
<td>Homozygous for Tg(IghelMD4)4Ccg, 1 pair minimum</td>
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RELATED PRODUCTS AND SERVICES

| Frozen Mouse Embryo    | NOD.B6-Tg(IghelMD4)4Ccg/DvsJ Frozen Embryos          | $2,595.00 |

PAYMENT TERMS AND CONDITIONS

Terms are granted by individual review and stated on the customer invoice(s) and account statement. These transactions are payable in U.S. currency within the granted terms. Payment for services, products, shipping containers, and shipping costs that are rendered are expected within the payment terms indicated on the invoice or stated by contract. Invoices and account balances in arrears of stated terms may result in The Jackson Laboratory pursuing collection activities including but not limited to outside agencies and court filings.

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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.

Terms Of Use

TERMS OF USE

General Terms and Conditions

ADDITIONAL USE RESTRICTIONS APPLY

Use of MICE by companies or for-profit entities requires a license prior to shipping.

LICENSING INFORMATION

Phone: 207-288-6470
Email: TechTran@jax.org
## Related Strains

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