Also Known As: CpG11

In these ENU-induced Tlr9 mutant mice, macrophages do not produce tumor necrosis factor (TNF) alpha in response to stimulation with oligodeoxynucleotides containing CpG motifs. This mutant mouse strain may be useful in studies of the role of toll like receptor 9 (TLR9) in the immune system.

Donating Investigator

Bruce Beutler, University of Texas Southwestern Medical

GENETIC OVERVIEW

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
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<tbody>
<tr>
<td>?p+N2F4</td>
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**Tlr9\textsuperscript{M7Btlr}**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Chemically induced (ENU)</td>
<td>Tlr9</td>
<td>toll-like receptor 9</td>
</tr>
</tbody>
</table>

RESEARCH APPLICATIONS

Immunology, Inflammation and Autoimmunity Research
Details

Detailed Description

Homozygotes: Mice that are homozygous for this mutation are viable, fertile, normal in size and do not display any gross physical or behavioral abnormalities. In response to stimulation with oligodeoxynucleotides containing CpG motifs, macrophages do not produce tumor necrosis factor (TNF) alpha. This mutant mouse strain may be useful in studies of the role of toll like receptor 9 (TLR9) in the immune system.

For additional information, see The Scripps Research Institute Mutagenix website.

Heterozygote: Macrophages from heterozygous mice produce a reduced level of TNF-alpha in response to CpG stimulation.

Development

Control Suggestions

Selected References

Genetics

Tlr9<sup>M7Btlr</sup>

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support
Genotyping Protocols
Sanger sequencing: Tlr9-SEQ
Genotyping resources and troubleshooting
Dietary Information
LabDiet® 5K52 formulation (6% fat)
Breeding Considerations

While maintaining a live colony, these mice are bred as homozygotes.

Additional Breeding and Husbandry Support
Mating System
Homozygote x Homozygote

Citation
When using the CpG11 mouse strain in a publication, please cite the originating article(s) and include MMRRC stock #34329 in your Materials and Methods section.

Animal Health Reports
Facility Barrier Level Descriptions

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Related Strains

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<tr>
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<tr>
<td>By Gene</td>
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<td>By Collection</td>
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</tbody>
</table>

All Related Strains