NONcNZ010/LtJ

Stock No: 004456

Recombinant Congenic (RC)

Available

PLACE ORDER

Live mice available in varying quantities. Ask Customer Service for details.

Overview

Also Known As: RCS-10

NONcNZ010/LtJ is a recombinant congenic strain developed at The Jackson Laboratory to model human obesity-induced Type 2 diabetes and Metabolic Syndrome. Type 2 diabetes in males of this strain results from polygenic interactions producing a moderate obesity rather than the massive obesity elicited by mutations in the leptin/leptin receptor axis. Unlike mice with monogenic obesity
syndromes, NONcNZO10/LtJ males do not exhibit hypercorticisms, are not hyperphagic, and show no obvious thermoregulatory defects. Male mice weaned onto LabDiet *5K20 (a chow diet containing 10-11% fat by weight) develop visceral obesity, maturity-onset hyperglycemia, dyslipidemia, moderate liver steatosis, and pancreatic islet atrophy.<br>

This strain is experiencing poor productivity. There will be a delay filling orders while we expand our colony.

**Donating Investigator**

Dr. Edward Leiter, The Jackson Laboratory

**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>002423 NON/Shit/J</td>
<td>N1F17p+F14</td>
</tr>
<tr>
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<td>(2019-07-16 00:00:00)</td>
</tr>
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**RESEARCH APPLICATIONS**

Diabetes and Obesity Research

**BASE PRICE**

Starting at:

$278.00 Domestic price for female

**Details**

**Detailed Description**

Onset of hyperglycemia occurs between 10-12 on a 10-11% fat (wt/wt) chow diet with greater than 85% diabetic by 18 weeks. Males exhibit increased serum triglycerides, moderate to severe liver steatosis and pancreatic islet atrophy similar to NZO/HILt males. Serum insulin and leptin values are significantly lower than in NZO/HILt, and are only moderately elevated above those recorded in NON/ShiLtJ males. Unlike the very obese NZO/HILt mice, NONcNZO10/LtJ mice do not exhibit hyperphagia or hypercorticisms and are much easier to breed. Although NONcNZO10/LtJ males develop only a moderate level of obesity compared to NZO/HILt males, the interaction with known diabetogenic QTL from the NON/ShiLtJ strain produce an earlier onset and higher prevalence of chronic hyperglycemia than observed in NZO/HILt males.

NONcNZO10/LtJ is differentially sensitive to adverse hepatic side effects of thiazolidinediones and may be useful for pharmac
Genotyping Protocols
Genotyping resources and troubleshooting

Dietary Information
New Diet as of March 2015: Lab Diet® 5K0Q (6% fat)

Breeding Considerations
Mice in breeding are maintained on LabDiet® 5K54.
Offspring are weaned onto and maintained on LabDiet® 5K20.

Additional Breeding and Husbandry Support

Mating System
Sibling x Sibling

Appearance
albino

Related Genotype: A/A Tyr+/Tyr+
Pricing & Availability

Live mice available in varying quantities. Ask Customer Service for details.

Available

<table>
<thead>
<tr>
<th>Domestic</th>
<th>International</th>
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<tbody>
<tr>
<td>Pricing effective for USA, Canada and Mexico shipping destinations</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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</thead>
<tbody>
<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Not Applicable</td>
<td>$278.00</td>
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<tr>
<td></td>
<td>Male</td>
<td>Not Applicable</td>
<td>$278.00</td>
</tr>
</tbody>
</table>

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.

Terms Of Use
Terms of Use
General Terms and Conditions

Additional Use Restrictions Apply
Notice regarding NONcNZ010/LtJ Female
Notice regarding NONcNZ010/LtJ Male

Licensing Information
Phone: 207-288-6470
Email: TechTran@jax.org

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Related Strains

- All
- By Allele
- By Gene
- By Collection

All Related Strains
Leading the search for
TOMORROW'S CURES