Overview

Mice homozygous for the beige spontaneous mutation (Lyst$^{bg}$) are characterized by a condition that closely resembles Chediak-Higashi disease in man and similar conditions in mink and cattle. Abnormal giant lysosomal granules occur in all tissues with granule-containing cells, including granulocytes, lymphocytes, cells of the liver, kidney, central nervous system, pancreas, and thyroid, and the ducts of most glands; in type II pneumocytes; in mast cells; and in retinal pigment epithelium. Granulocytes from beige homozygous mutant mice mice show defective chemotaxis and reduced bactericidal activity. Beige mice are more susceptible than controls to pneumonitis and to various viral, bacterial, and parasitic infections. Natural killer (NK) cells from beige mice exhibit decreased endogenous cytotoxic activity. Beige mice also have a defective cytotoxic T-cell and cytotoxic antibody response to allogeneic tumor cells. Syngeneic tumor cells grow better in beige mice than in l...
GENETIC OVERVIEW

Genetic Background
000664 C57BL/6J

Lyst<sup>bg</sup>

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
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<tbody>
<tr>
<td>Radiation induced</td>
<td>Lyst</td>
<td>lysosomal trafficking regulator</td>
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</table>

RESEARCH APPLICATIONS

Metabolism Research
Cardiovascular Research
Dermatology Research
Hematological Research
Immunology, Inflammation and Autoimmunity Research
Internal/Organ Research
Mouse/Human Gene Homologs
Research Tools

BASE PRICE
Starting at:
$2,595.00 Domestic price Cryo Recovery

Details

Mice homozygous for the beige spontaneous mutation (Lyst<sup>bg</sup>) are characterized by a condition that closely resembles Chediak-Higashi disease in man and similar conditions in mink and cattle. Abnormal giant lysosomal granules occur in all tissues with granule-containing cells, including granulocytes, lymphocytes, cells of the liver, kidney, central nervous system, pancreas, and thyroid, and the ducts of most glands; in type II pneumocytes; in mast cells; and in retinal pigment epithelium. Granulocytes from beige homozygous mutant mice mice show defective chemotaxis and reduced bactericidal activity. Beige mice are more susceptible than controls to pneumonitis and to various viral, bacterial, and parasitic infections. Natural killer (NK) cells from beige mice exhibit decreased endogenous cytotoxic activity. Beige mice also have a defective cytotoxic T-cell and cytotoxic antibody response to allogeneic tumor cells. Syngeneic tumor cells grow better in beige mice than in littermate controls, an effect thought to be due to the deficiency of NK cells. Beige mice have platelet storage pool deficiency, leading to a prolonged bleeding time. The immunodeficiency of beige mutant mice has been used, especially in combination with the scid mutation (Prkdc<sup>scid</sup>), in tissue graft and disease studies.

Development
Genetics

Lyst<sup>bg</sup>

Disease/Phenotype

Disease Terms

Research Areas By Genotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

CONTACT TECHNICAL SUPPORT

Genotyping Protocols
Genotyping resources and troubleshooting

Citation

When using the BAC-C2R1: Lyst<sup>bg</sup>/J mouse strain in a publication, please cite the originating article(s) and include JAX stock #000204 in your Materials and Methods section.

Animal Health Reports
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.

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<tr>
<th>SERVICE</th>
<th>GENOTYPE</th>
<th>PRICE</th>
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</thead>
<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous for Lyst&lt;sup&gt;bg&lt;/sup&gt;</td>
<td>$2,595.00</td>
</tr>
</tbody>
</table>
We will fulfill your order by providing at least two carriers for each strain ordered. The total number, sex, and genotypes provided will vary, although typically 8 or more animals are provided. **Please check genotypes which will be recovered.** While the genotypes of all animals produced will be communicated to you prior to scheduling shipment, the genotypes of animals provided may not reflect the mating scheme and genotypes described in the strain description. **Animals are typically ready to ship in 11-14 weeks.** If a second recovery is required to produce the minimum number of animals, then delivery time would increase to approximately 25 weeks. If we fail to produce animals of the correct genotype, you will not be charged. We cannot guarantee the reproductive success of mice shipped to your facility. If the mice are lost after the first three days (post-arrival) or do not produce progeny at your facility, a new order and fee will be necessary.

Cryorecovery to establish a Dedicated Supply for greater quantities of mice. Mice recovered can be used to establish a dedicated colony to contractually supply you mice according to your requirements. Price by quotation.

**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.

**The Jackson Laboratory’s Genotype Promise**

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.

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Terms of Use

**General Terms and Conditions**

**Licensing Information**

Phone: 207-288-6470

Email: TechTran@jax.org

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Consistent with the requirement for a written understanding regarding animal care and use, the JACKSON Animal Care and Use Committee will review the animal care and use protocol(s) associated with any SERVICES to be performed at JACKSON, and JACKSON shall have ultimate responsibility and authority for the care of animals while on site or in JACKSON custody.

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Shipments have begun at our new facility, allowing increased access to JAX mouse models.

Leading the search for
TOMORROW'S CURES