Overview

B6.129P2(Lyz2CreERT2)Grtn/J

Stock No: 032291

Congenic, Targeted Mutation

Available for pre-order

Pre-order now

Estimated to begin distribution on Jun 29, 2020
When these LysM-Cre ER\textsuperscript{T2} knock-in/knock-out mice are bred with mice containing a \textit{loxP}-flanked sequence of interest, tamoxifen-inducible, Cre-mediated recombination will result in deletion of the \textit{loxP}-flanked sequences in myeloid cells. They are suitable for use in applications related to tamoxifen-inducible Cre-lox studies of the myeloid cell lineage (monocytes, mature macrophages and granulocytes) and the innate immune response.

Stock No. 032291 is a C57BL/6J-congenic LysM-Cre ER\textsuperscript{T2} knock-in/knock-out mouse line. Of note, the same LysM-Cre ER\textsuperscript{T2} knock-in/knock-out allele is also available on a FVB;129 genetic background as Stock No. 031674.

Donating Investigator
Florian Greten, Georg-Speyer-Haus
Detailed Description

The targeted Lyz2 gene encodes the antimicrobial enzyme found in myeloid cell lineage (myeloblasts, monocytes, macrophages). The LysM-Cre ER\textsuperscript{T2} knock-in allele has CreER\textsuperscript{T2} and a downstream loxP site-flanked NEO/kan cassette replacing exon 1, including the ATG start site, of the endogenous Lyz2 gene. In this inducible LysM-Cre ER\textsuperscript{T2} knock-in/knock-out strain, Cre-ERT2 protein expression is driven by the endogenous Lyz2 promoter. Cre activity is only detected upon treatment with tamoxifen, thereby offering both spatial and temporal control. Heterozygous mice are viable and fertile. Homozygous viability/fertility has not been tested (May 2018). When crossed to a reporter strain, Cre recombinase activity was detected only in CD11b positive cells in liver, lung, spleen, colon, and kidney tissues.

In an attempt to offer alleles on well-characterized or multiple genetic backgrounds, alleles are frequently moved to a genetic background different from that on which an allele was first characterized. This is the case for the strain above. It should be noted that the phenotype could vary from that originally described. We will modify the strain description if necessary as published results become available.

Development

Expression Data

Control Suggestions

Selected References

Genetics

\textit{Lyz2}\textsuperscript{tm1(cre/ERT2)Grtn}

Disease/Phenotype

Disease Terms

Research Areas By Phenotype

Mammalian Phenotype Terms by Genotype

References

Technical Support

Genotyping Protocols
Separated PCR: Lyz2
Genotyping resources and troubleshooting
Breeding Considerations
When maintaining a live colony, heterozygous mice may be bred together, to wildtype siblings, or to inbred mice. Homozygous viability/fertility has not been tested (May 2018).

Additional Breeding and Husbandry Support

Citation
When using the B6.129P2(FVB)-Lyz2^{tm1(cre/ERT2)Grtn}J mouse strain in a publication, please cite the originating article(s) and include JAX stock #032291 in your Materials and Methods section.

Pricing & Availability

Estimated to begin distribution on Jun 29, 2020

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.

 Live Mouse

<table>
<thead>
<tr>
<th>AGE</th>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approx 4-8 weeks</td>
<td>Female</td>
<td>Heterozygous for Lyz2(^{tm1(cre/ERT2)Grtn})</td>
<td>$255.00</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Heterozygous for Lyz2(^{tm1(cre/ERT2)Grtn})</td>
<td>$255.00</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>Wild-type for Lyz2(^{tm1(cre/ERT2)Grtn})</td>
<td>$78.51</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Wild-type for Lyz2(^{tm1(cre/ERT2)Grtn})</td>
<td>$78.51</td>
</tr>
</tbody>
</table>

Breeder Pair

<table>
<thead>
<tr>
<th>SEX</th>
<th>GENOTYPE</th>
<th>PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>Heterozygous for Lyz2(^{tm1(cre/ERT2)Grtn})</td>
<td>$333.51</td>
</tr>
<tr>
<td>Male</td>
<td>Wild-type for Lyz2(^{tm1(cre/ERT2)Grtn})</td>
<td>$333.51</td>
</tr>
<tr>
<td>Female</td>
<td>Wild-type for Lyz2(^{tm1(cre/ERT2)Grtn})</td>
<td>$333.51</td>
</tr>
<tr>
<td>Male</td>
<td>Heterozygous for Lyz2(^{tm1(cre/ERT2)Grtn})</td>
<td>$333.51</td>
</tr>
</tbody>
</table>
and/or captured in the strain data sheets. Therefore, we cannot guarantee a strain's phenotype will meet all expectations. To ensure 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

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

JAX® Mice, Products & Services Conditions of Use
"MICE" means mouse strains, their progeny derived by inbreeding or crossbreeding, unmodified derivatives from mouse strains or their progeny supplied by The Jackson Laboratory ("JACKSON"). "PRODUCT(S)" means biological materials supplied by JACKSON, and their derivatives. "SERVICES" means projects conducted by JACKSON for other parties that may include but are not limited to the use of MICE or PRODUCTS. "RECIPIENT" means each recipient of MICE, PRODUCTS, or SERVICES provided by JACKSON including each institution, its employees and other researchers under its control. MICE or PRODUCTS shall not be: (i) used for any purpose other than internal research, (ii) sold or otherwise provided to any third party for any use, or (iii) provided to any agent or other third party to provide breeding or other services. Acceptance of MICE, PRODUCTS or SERVICES from JACKSON shall be deemed as agreement by RECIPIENT to these conditions, and departure from these conditions requires JACKSON's prior written authorization.

No Warranty
MICE, PRODUCTS AND SERVICES ARE PROVIDED "AS IS". JACKSON EXTENDS NO WARRANTIES OF ANY KIND, EITHER EXPRESS, IMPLIED, OR STATUTORY, WITH RESPECT TO MICE, PRODUCTS OR SERVICES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, OR ANY WARRANTY OF NON-INFRINGEMENT OF ANY PATENT, TRADEMARK, OR OTHER INTELLECTUAL PROPERTY RIGHTS.

Credit for PRODUCTS or SERVICES
In case of dissatisfaction for a valid reason and claimed in writing by a purchaser within ninety (90) days of receipt of, PRODUCTS or SERVICES, JACKSON will, at its option, provide credit or replacement for the PRODUCT received or the SERVICES provided; JACKSON makes no other representations and this shall be the exclusive remedy of the purchaser. Please note specific policy for live mice.

Animal Care and Use for SERVICES
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.

No Liability
In no event shall JACKSON, its trustees, directors, officers, employees, and affiliates be liable for any causes of action or damages, including any direct, indirect, special, or consequential damages, arising out of the provision of MICE, PRODUCTS, or SERVICES, including economic damage or injury to property and lost profits, and including any damage arising from acts or negligence on the part of JACKSON, its agents or employees. Unless prohibited by law, in purchasing or receiving MICE, PRODUCTS, or SERVICES from JACKSON, purchaser or recipient, or any party claiming by or through them, expressly releases and discharges JACKSON from all such causes of action or damages, and further agrees to defend and indemnify JACKSON from any costs or damages arising out of any third party claims.

MICE, PRODUCTS or SERVICES are to be used in a safe manner and in accordance with all applicable governmental rules and regulations.

The foregoing represents the General Terms and Conditions applicable to JACKSON's MICE, PRODUCTS or SERVICES. In addition, special terms and conditions of sale of certain MICE, PRODUCTS, or SERVICES may be set forth separately in JACKSON web pages, catalogs, price lists, contracts, and/or other documents, and these special terms and conditions shall also
govern the sale of these MICE, PRODUCTS and SERVICES by JACKSON, and by its licensees and distributors. Acceptance of delivery of MICE, PRODUCTS or SERVICES shall be deemed agreement to these terms and conditions. No purchase order or other document transmitted by purchaser or recipient that may modify the terms and conditions hereof, shall be in any way binding on JACKSON, and instead the terms and conditions set forth herein, including any special terms and conditions set forth separately, shall govern the sale of MICE, PRODUCTS or SERVICES by JACKSON.

Related Strains

All

By Allele

By Gene

By Collection

All Related Strains

DO YOU NEED BALB/c MICE?
Rely on JAX to provide the models you need, when you need them.