The Srd5a2 knock-in allele was designed to both abolish Srd5a2 gene expression and express EGFP and Cre-ER proteins from the Srd5a2 promoter in the males reproductive tract and the ovary.

Donating Investigator
Andrew P. McMahon, University of Southern California

Typically mice are recovered in 10-14 weeks. Contact Customer Service to place an order or for more information.
The Srd5a2\textsuperscript{G2aCE} knock-in allele was designed to both abolish steroid 5 alpha-reductase 2 (Srd5a2) gene expression and express individual EGFP and Cre-ER\textsuperscript{T2} proteins from the Srd5a2 promoter/enhancer elements. SRD5A2 encodes a microsomal protein expressed at high levels in androgen-sensitive tissues where it plays a role in sexual differentiation and androgen physiology. Heterozygous Srd5a2\textsuperscript{G2aCE} mice are viable and fertile. The donating investigator has not attempted to make this strain homozygous. No EGFP fluorescence is seen in these mice. Cre-ER\textsuperscript{T2} gene activity is inducible and can be observed following tamoxifen administration. As such, when these mice are bred with mice containing loxP-flanked sequences, tamoxifen-inducible Cre-mediated recombination will result in deletion of the floxed sequences in the males reproductive tract and the ovary. Specifically, when tamoxifen is induced at P5 Cre-mediated recombination occurs in skeletal muscle alpha actin and is closely apposed to Keratin-5 (Krt5)-expressing cells of the prostate and seminal vesicles, as well as other components of the male reproductive tract and the ovary of 8-12 week old mice.

This strain was transferred from the collection of the GenitoUrinary Development Molecular Anatomy Project (GUDMAP).

### Development

### Expression Data

### Control Suggestions

### Selected References

### Genetics

\textit{Srd5a2}^{tm1(cre/ERT2)Amc}
Genotyping Protocols
Standard PCR: Srd5a2
Genotyping resources and troubleshooting

Breeding Considerations

When maintaining a live colony, heterozygous mice may be bred to wildtype mice from the colony or to C57BL/6J inbred mice (Stock No. 000664). The donating investigator has not attempted to make this strain homozygous.

Additional Breeding and Husbandry Support
Mating System
Heterozygote x Wild-type
Wild-type x Heterozygote

Citation
When using the Srd5a2-G2aCE mouse strain in a publication, please cite the originating article(s) and include JAX stock #028117 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
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/PRODUCT</th>
<th>DESCRIPTION</th>
<th>PRICE</th>
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<tbody>
<tr>
<td>Cryo Recovery</td>
<td>Heterozygous or wildtype for Srd5a2&lt;tm1(cre/ERT2)Amc&gt;</td>
<td>$2,854.50</td>
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| RELATED PRODUCTS AND SERVICES |
|------------------------------|-----------------|---------|
| Frozen Mouse Embryo          | C57BL/6-Srd5a2<tm1(cre/ERT2)Amc>/J | $2,595.00 |

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

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