This CRISPR-generated knock-out mutant of the prolactin regulatory element binding (Preb) gene has been generated by the Knockout Mouse Phenotyping Program (KOMP) at The Jackson Laboratory. Preb encodes a transcriptional regulator that specifically binds to a Pit1-binding element of the prolactin promoter and may be involved in some of the developmental abnormalities observed in patients with partial trisomy 2p.
**GENETIC OVERVIEW**

<table>
<thead>
<tr>
<th>Genetic Background</th>
<th>Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>005304 C57BL/6NJ</td>
<td>N1F1</td>
</tr>
</tbody>
</table>

**Preb<sup>em1(IMPC)J</sup>**

<table>
<thead>
<tr>
<th>Allele Type</th>
<th>Gene Symbol</th>
<th>Gene Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endonuclease-mediated (Null/Knockout)</td>
<td>Preb</td>
<td>prolactin regulatory element binding</td>
</tr>
</tbody>
</table>

**RESEARCH APPLICATIONS**

**Details**

**Detailed Description**

This strain was generated by the Knockout Mouse Phenotyping Program (KOMP<sup>3</sup>) at The Jackson Laboratory using CRISPR technology. The targeted gene, prolactin regulatory element binding (Preb), encodes a transcriptional regulator that specifically binds to a Pit1-binding element of the prolactin promoter and may be involved in some of the developmental abnormalities observed in patients with partial trisomy 2p. The alteration resulted in the deletion of 1660 bp in exons 2-6 and 869 bp of flanking intronic sequence, including the splice acceptor and donor, and is predicted to cause a change of amino acid sequence and early truncation after residue 45. As mice are characterized, phenotype data will be accessible on the International Mouse Phenotyping Consortium website.

**Development**

**Control Suggestions**

**Genetics**

**Preb<sup>em1(IMPC)J</sup>**

**Disease/Phenotype**

**Disease Terms**

**Research Areas By Phenotype**
Genotyping Protocols
Probe:Preb

Breeding Considerations
Heterozygotes may be bred to C57BL/6NJ (Stock No. 005304) or wildtype littermates. As mice are characterized, data related to viability and fertility will be provided on the International Mouse Phenotyping Consortium website.

Additional Breeding and Husbandry Support

Mating System
Heterozygote x Heterozygote

Citation
When using the C57BL/6NJ-Preb<sup>em1(MPC)</sup>/Mmjax mouse strain in a publication, please cite the originating article(s) and include MMRRC stock #65731 in your Materials and Methods section.

Facility Barrier Level Descriptions

Animal Health Reports

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All

By Allele

By Gene