

**STOCK *Zp2*<sup>tm1Dean</sup> Tg(ZP2\*)4Dean/Mmjax**MMRRC Stock No: **37592-JAX** | mo/huZP2 Rescue Targeted Mutation, Transgenic

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The mo/huZP2<sup>Rescue</sup> strain carries a *Zp2* KO allele and a human ZP2 BAC transgene in which exons 2-5 are replaced with the corresponding mouse DNA from exons 2-5. This strain may be useful for studying the role of the ZP2 N-terminus in human gamete recognition.

## Donating Investigator

Jurrien Dean, NIH / NIDDK

R E A D M O R E +

## GENETIC OVERVIEW

## Genetic Background

## Generation

*Zp2*<sup>tm1Dean</sup>

## Allele Type

Targeted (Null/Knockout)

## Gene Symbol

*Zp2*

## Gene Name

zona pellucida glycoprotein 2

## Tg(ZP2\*)4Dean

## Allele Type

Transgenic (Inserted expressed sequence, Humanized sequence)

V I E W G E N E T I C S

## RESEARCH APPLICATIONS

Reproductive Biology Research

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## Details

### Detailed Description

The mo/huZP2<sup>Rescue</sup> strain carries a *Zp2* KO allele and a human ZP2 BAC transgene in which exons 2-5 are replaced with the corresponding mouse DNA from exons 2-5. This region of the N-terminal includes the gamete recognition domain necessary for sperm binding.

Although the zona pellucida appears normal in ovarian sections from female mice, human sperm does not bind to the zona pellucida. In the reciprocal strain, hu/mo Zp2<sup>Rescue</sup>, human sperm binds to the zona. This strain may be useful for studying the role of the ZP2 N-terminus in human gamete recognition.

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### Development

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### Expression Data

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### Control Suggestions

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### Selected References

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## Genetics

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### *Zp2*<sup>tm1Dean</sup>

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### Tg(ZP2\*)4Dean

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## Disease/Phenotype

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### Disease Terms

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### Research Areas By Phenotype

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### Mammalian Phenotype Terms by Genotype

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[- Technical Support](#)

C O N T A C T   T E C H N I C A L   S U P P O R T

### Genotyping Protocols

Separated PCR:[Zp2 Alternate1](#)

Standard PCR:[Tg\(ZP2\\*\)4Dean-alternate2](#)

[Genotyping resources and troubleshooting](#)

### Breeding Considerations

While maintaining a live colony, these female mice are bred as heterozygous for the  $Zp2^{tm1Dean}$  allele and hemizygous for the transgene x homozygous homozygous (male). Female mice homozygous for the targeted allele and the transgene are poor breeders.

[Additional Breeding and Husbandry Support](#)

### Citation

When using the mo/huZP2 Rescue mouse strain in a publication, please [cite the originating article\(s\)](#) and include MMRRC stock #37592 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](#)*

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By Allele

By Gene

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