Fertility of Homozygous Knock-out Mice
MPC_FER_001

Purpose
To assess the fertility of homozygous knockout mice.

Experimental Design

- Minimum 1 hom x hom mating for fertile mice and minimum of 2 failed hom x hom matings attempts to proceed to secondary screen.
- Secondary screen: Minimum 2 Hom x 1 WT or Het (Male), Minimum 2 Hom x 1 WT or Het (Female)
- Minimal age at test = minimal age at start of procedure = 8 weeks.
- Maximum age at test = To be confirmed, proposed 14 weeks
- Minimum length of test (time mice left in mating) 4 - 6 weeks

Procedure

1. Homozygous mice (minimum age of 8 weeks, maximum age of 14 weeks) are mated for 4-6 weeks. Strains that produce no progeny or pregnant dams after 4 to 6 weeks progress to secondary screening.
2. Secondary Male Infertility Screen:
   1. Set up 2 separate matings: male Hom x female WT or Het
   2. Observe matings for 4 to 6 weeks;
   3. Matings that result in visibly pregnant females (confirmed by dissection) or pups will be scored MALE FERTILE.
   4. Matings that do not result in pregnancy will be scored MALE INFERTILITY.
3. Secondary Female Infertility Screen
   1. Set up 2 separate matings: female Hom x male WT or Het
   2. Observe matings for 4 to 6 weeks;
   1. Matings that result in visibly pregnant females (confirmed by dissection) or pups will be scored FEMALE FERTILE.
   2. Matings that do not result in pregnancy will be scored FEMALE INFERTILITY.

Notes
Pregnancies should be confirmed.
All annotations are based on yes/no scores.

Parameters and Metadata
Total pups with dissection (primary)  IMPC_FER_005_001 | v1.5

simpleParameter


Unit Measured: count

Age of set up (Female screen)  IMPC_FER_021_001 | v1.0

procedureMetadata


Unit Measured: Weeks

Total litters (primary)  IMPC_FER_004_001 | v1.3

simpleParameter


Unit Measured: count

Age of set up  IMPC_FER_014_001 | v1.0

procedureMetadata


Unit Measured: Weeks
Pups born (Female Screen) IMPC_FER_010_001 | v1.5

simpleParameter


UnitMeasured: count

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Test strain genotype IMPC_FER_016_001 | v1.1

procedureMetadata


Options: Heterozygous, Homozygous, Wild type, Hemizygous,

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Time spent in breeding (Male screen) IMPC_FER_022_001 | v1.0

procedureMetadata


Unit Measured: days

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Gross Findings Male IMPC_FER_001_001 | v1.4

simpleParameter
Options: Fertile, Infertile,

Date of matings IMPC_FER_018_001 | v1.2

Total pups/embryos (Female Screen) IMPC_FER_013_001 | v1.2

Time spent in breeding IMPC_FER_015_001 | v1.2
Time spent in breeding (Female screen)  IMPC_FER_023_001 | v1.0

procedureMetadata


Unit Measured: days

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Age of set up (Male screen)  IMPC_FER_020_001 | v1.1

procedureMetadata


Unit Measured: Weeks

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Total pups/embryos (Male Screen)  IMPC_FER_009_001 | v1.2

simpleParameter


Unit Measured: count

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Test strain background secondary (MGI ID)  IMPC_FER_017_01 | v1.2

procedureMetadata

**Pups born (Male screen)** IMPC_FER_006_001 | v1.5

simpleParameter


Unit Measured: count

**Pups born (primary)** IMPC_FER_002_001 | v1.3

simpleParameter


Unit Measured: count

**Total matings (Male screen)** IMPC_FER_007_001 | v1.4

simpleParameter


Unit Measured: count

**Total litters (Male screen)** IMPC_FER_008_001 | v1.1

simpleParameter
Total matings (primary) IMPC_FER_003_001 | v1.2

Total matings (Female Screen) IMPC_FER_011_001 | v1.4

Total litters (Female Screen) IMPC_FER_012_001 | v1.1
Gross Findings Female IMPC_FER_019_001 | v1.3

simpleParameter


Options: Infertile, Fertile,