Fertility of Homozygous Knock-out Mice IMPC_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
      1. Observe matings for 4 to 6 weeks;
      2. Matings that result in visibly pregnant females (confirmed by dissection) or pups will be scored MALE FERTILE.
      3. 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
Gross Findings Male  IMPC_FER_001_001 | v1.4

Description: gross_findings
Options: Fertile, Infertile,

Pups born (primary)  IMPC_FER_002_001 | v1.3

Description: pups_born_primary_

Total matings (primary)  IMPC_FER_003_001 | v1.2

Description: total_matings_primary_
Total litters (primary)  IMPC_FER_004_001  | v1.3

simpleParameter


Unit Measured: count

Description: total_litters_primary_

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

simpleParameter


Unit Measured: count

Description: total_pups_primary_

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Pups born (Male screen)  IMPC_FER_006_001  | v1.5

simpleParameter


Unit Measured: count

Description: pups_born_male_screen_
Total matings (Male screen) IMPC_FER_007_001 | v1.4

**Unit Measured:** count

**Description:** total_matings_male_screen_

Total litters (Male screen) IMPC_FER_008_001 | v1.1

**Unit Measured:** count

**Description:** total_litters_male_screen_

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

**Unit Measured:** count

**Description:** total_pups_embryos_male_screen_
Pups born (Female Screen) IMPC_FER_010_001 | v1.5

**simpleParameter**

- **Req. Analysis:** false  
- **Req. Upload:** false  
- **Is Annotated:** false

**Unit Measured:** count

**Description:** pups_born_female_screen_

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Total matings (Female Screen) IMPC_FER_011_001 | v1.4

**simpleParameter**

- **Req. Analysis:** false  
- **Req. Upload:** false  
- **Is Annotated:** false

**Unit Measured:** count

**Description:** total_matings_female_screen_

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Total litters (Female Screen) IMPC_FER_012_001 | v1.1

**simpleParameter**

- **Req. Analysis:** false  
- **Req. Upload:** false  
- **Is Annotated:** false

**Unit Measured:** count

**Description:** total_litters_female_screen_
Total pups/embryos (Female Screen) IMPC_FER_013_001 | v1.2

**simpleParameter**

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**Unit Measured:** count

**Description:** total_pups_embryos_female_screen_

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Age of set up IMPC_FER_014_001 | v1.0

**procedureMetadata**

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**Unit Measured:** Weeks

**Description:** age_of_set_up

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Time spent in breeding IMPC_FER_015_001 | v1.2

**procedureMetadata**

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**Unit Measured:** days

**Description:** time_breeding
Test strain genotype IMPC_FER_016_001 | v1.1

**Description:** test_strain_genotype

**Options:** Heterozygous, Wild type, Homozygous, Hemizygous,

Test strain background secondary (MGI ID) IMPC_FER_017_001 | v1.2

**Description:** test_strain_background

Date of matings IMPC_FER_018_001 | v1.2

**Description:** date_of_matings
**Gross Findings Female** IMPC_FER_019_001 | v1.3

*simpleParameter*

**Options:** Fertile, Infertile,

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

*procedureMetadata*

**Unit Measured:** Weeks

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

*procedureMetadata*

**Unit Measured:** Weeks

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

*procedureMetadata*
Time spent in breeding (Female screen) IMPC_FER_023_001 | v1.0

procedureMetadata

Unit Measured: days