Fertility of Homozygous Knock-out Mice IM PC_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

simpleParameter

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

Description: gross_findings

Options: Infertile, Fertile,

Pups born (primary) IMPC_FER_002_001 | v1.3

simpleParameter

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

Unit Measured: count

Description: pups_born_primary_

Total matings (primary) IMPC_FER_003_001 | v1.2

simpleParameter

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

Unit Measured: count

Description: total_matings_primary_

Total litters (primary) IMPC_FER_004_001 | v1.3

simpleParameter

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

Unit Measured: count

Description: total_litters_primary_

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

simpleParameter

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

Unit Measured: count

Description: total_pups_primary_

Pups born (Male screen) IMPC_FER_006_001 | v1.5

simpleParameter

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

Unit Measured: count

Description: pups_born_male_screen_

Total matings (Male screen) IMPC_FER_007_001 | v1.4

simpleParameter

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

Unit Measured: count

Description: total_matings_male_screen_

Total litters (Male screen) IMPC_FER_008_001 | v1.1

simpleParameter

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

Unit Measured: count

Description: total_litters_male_screen_

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

simpleParameter

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

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_

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_

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

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

Unit Measured: count

Description: total_pups_embryos_female_screen_

Age of set up IMPC_FER_014_001 | v1.0

procedureMetadata

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

Unit Measured: Weeks

Description: age_of_set_up

Time spent in breeding IMPC_FER_015_001 | v1.2

procedureMetadata

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

Unit Measured: days

Description: time_breeding

Test strain genotype IMPC_FER_016_001 | v1.1

procedureMetadata

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

Description: test_strain_genotype

Options: Heterozygous, Wild type, Homozygous, Hemizygous,

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

procedureMetadata

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

Description: test_strain_background

Date of matings IMPC_FER_018_001 | v1.2

procedureMetadata

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

Description: date_of_matings

Gross Findings Female IMPC_FER_019_001 | v1.3

simpleParameter

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

Options: Fertile, Infertile,

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

procedureMetadata

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

Unit Measured: Weeks

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

procedureMetadata

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

Unit Measured: Weeks

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

procedureMetadata

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

Unit Measured: days

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

procedureMetadata

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

Unit Measured: days

Heterozygous - Gross Findings Male IMPC_FER_024_001 | v1.0

simpleParameter

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

Options: Fertile, Infertile,

Heterozygous - Gross Findings Female IMPC_FER_025_001 | v1.0

simpleParameter

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

Options: Fertile, Infertile,