



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:
 - a. Set up 2 separate matings: male Hom x female WT or Het
 - i. Observe matings for 4 to 6 weeks;
 - ii. Matings that result in visibly pregnant females (confirmed by dissection) or pups will be scored MALE FERTILE.
 - iii. Matings that do not result in pregnancy will be scored MALE INFERTILITY.
3. Secondary Female Infertility Screen
 - a. Set up 2 separate matings: female Hom x male WT or Het
 - b. Observe matings for 4 to 6 weeks;
 - i. Matings that result in visibly pregnant females (confirmed by dissection) or pups will be scored FEMALE FERTILE.
 - ii. 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

	Version	Type	Increment	Option	Derived	Unit	Data Type
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	Version	Type	Increment	Option	Derived	Unit	Data Type
Gross Findings Male IMPC_FER_001_001	1.4	Simple Parameter		Fertile Infertile			TEXT
Gross Findings Female IMPC_FER_019_001	1.3	Simple Parameter		Fertile Infertile			TEXT
Pups born (primary) IMPC_FER_002_001	1.3	Simple Parameter				count	INT
Total matings (primary) IMPC_FER_003_001	1.2	Simple Parameter				count	INT
Total litters (primary) IMPC_FER_004_001	1.3	Simple Parameter				count	INT
Total pups with dissection (primary) IMPC_FER_005_001	1.5	Simple Parameter				count	INT
Pups born (Male screen) IMPC_FER_006_001	1.5	Simple Parameter				count	INT
Total matings (Male screen) IMPC_FER_007_001	1.4	Simple Parameter				count	INT
Total litters (Male screen) IMPC_FER_008_001	1.1	Simple Parameter				count	INT
Total pups/embryos (Male Screen) IMPC_FER_009_001	1.2	Simple Parameter				count	INT
Pups born (Female Screen) IMPC_FER_010_001	1.5	Simple Parameter				count	INT
Total matings (Female Screen) IMPC_FER_011_001	1.4	Simple Parameter				count	INT
Total litters (Female Screen) IMPC_FER_012_001	1.1	Simple Parameter				count	INT
Total pups/embryos (Female Screen) IMPC_FER_013_001	1.2	Simple Parameter				count	INT

Metadata

	Version	Type	Increment	Option	Derived	Unit	Data Type
Age of set up IMPC_FER_014_001	1.0	Procedure Metadata				Weeks	INT
Time spent in breeding	1.2	Procedure				days	INT

	Version	Type	Increment	Option	Derived	Unit	Data Type
IMPC_FER_015_001		Metadata					
Test strain genotype IMPC_FER_016_001	1.1	Procedure Metadata		Homozygous Heterozygous Hemizygous Wild type			TEXT
Test strain background secondary (MGI ID) IMPC_FER_017_001	1.2	Procedure Metadata					TEXT
Date of matings IMPC_FER_018_001	1.2	Procedure Metadata					DATE
Age of set up (Male screen) IMPC_FER_020_001	1.1	Procedure Metadata				Weeks	INT
Age of set up (Female screen) IMPC_FER_021_001	1.0	Procedure Metadata				Weeks	INT
Time spent in breeding (Male screen) IMPC_FER_022_001	1.0	Procedure Metadata				days	INT
Time spent in breeding (Female screen) IMPC_FER_023_001	1.0	Procedure Metadata				days	INT