Gross Morphology Placenta E14.5-E15.5 IM PC_GPO_001

Purpose

To assess visible morphological defects in E14.5-15.5 placentas from lethal strains.

Experimental Design

- Set up timed matings with heterozygous mice
- Day 0 is defined as the midpoint of the prior dark cycle following the identification of a copulation plug.
- Minimum number of animals: 1 mutant of any sex
- Age at test: E14.5-E15.5
- Capture gross images (optional)
- Collect tissue and genotype embryos.

Procedure

1. Set up timed mating with heterozygous animals. Dissect at a consistent time and collect >=2 placentas from homozygote embryos. Coordination with viability screen is at the centres discretion.
2. Assess placentas according to Gross Morphology parameters.
3. Generate gross images of placentas (optional) with scored defects and control placentas.
4. Collect tissue for genotyping
5. Process placentas for Histopathology, or other imaging (OPTIONAL - depending on center pipeline)
6. Scores will be shown per placenta and split by zygosity.

Notes

All genotypes should be collected using validated assays.

Y chromosome assay required for X-linked lethal strains.

Placentas may be processed for Histopathology or 3D Imaging.
Parameters and Metadata

**Placenta Development** IMPC_GPO_001_001 | v1.0

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

  **Options:** unobservable, abnormal, normal,

**Time of Dissection** IMPC_GPO_013_001 | v1.0

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

**Date equipment last calibrated** IMPC_GPO_017_001 | v1.1

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

**Fixative** IMPC_GPO_012_001 | v1.0

- **procedureMetadata**
- **Req. Analysis:** false  
  **Req. Upload:** true  
  **Is Annotated:** false
Comment on image  IMPC_GPO_006_001 | v1.0

simpleParameter


Time of dark cycle end  IMPC_GPO_016_001 | v1.0

procedureMetadata


Pale placenta  IMPC_GPO_018_001 | v1.0

simpleParameter


Options: unobservable, yes, no,

Equipment ID  IMPC_GPO_009_001 | v1.0

procedureMetadata

Equipment Manufacturer IMPC_GPO_010_001 | v1.0
procedureMetadata


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Somite Stage IMPC_GPO_014_001 | v1.1
procedureMetadata


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Experimenter ID IMPC_GPO_008_001 | v1.0
procedureMetadata


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Images IMPC_GPO_007_001 | v1.0
seriesMediaParameter


Increments: Minimum 1
**Time of dark cycle start**  IMPC_GPO_015_001  |  v1.0

procedureMetadata


**Placenta Morphology**  IMPC_GPO_002_001  |  v1.0

simpleParameter


Options: unobservable, abnormal, normal,

**Placenta Size**  IMPC_GPO_004_001  |  v1.0

simpleParameter


Options: unobservable, normal, abnormal,

**Equipment Model**  IMPC_GPO_011_001  |  v1.0

procedureMetadata
**Umbilical cord morphology**  IMPC_GPO_005_001 | v1.0

`simpleParameter`

**Options:** normal, unobservable, abnormal,

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**Placenta Vasculature**  IMPC_GPO_003_001 | v1.0

`simpleParameter`

**Options:** unobservable, abnormal, normal,