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*

**Description:** placenta_development

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

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

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**Placenta Morphology** IMPC_GPO_002_001 | v1.0

*simpleParameter*

**Description:** placenta_morphology

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

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

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**Placenta Vasculature** IMPC_GPO_003_001 | v1.0

*simpleParameter*

**Description:** placenta_vasculature

**Req. Analysis:** false  **Req. Upload:** false  **Is Annotated:** true
Options: normal, abnormal, unobservable,

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**Placenta Size** IMPC_GPO_004_001 | v1.0

*simpleParameter*


Description: placenta_size

Options: normal, abnormal, unobservable,

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

*simpleParameter*


Description: umbilical_cord_morphology

Options: normal, abnormal, unobservable,

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**Comment on image** IMPC_GPO_006_001 | v1.0

*simpleParameter*


Description: comment_on_image
Images  IMPC_GPO_007_001 | v1.0

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

Description: images

Increments: Minimum 1

Experimenter ID  IMPC_GPO_008_001 | v1.0

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

Description: experimenter_id

Equipment ID  IMPC_GPO_009_001 | v1.0

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

Description: equipment_id
Equipment Manufacturer  IMPC_GPO_010_001 | v1.0
procedureMetadata


Description: equipment_manufacturer

Equipment Model  IMPC_GPO_011_001 | v1.0
procedureMetadata


Description: equipment_model

Fixative  IMPC_GPO_012_001 | v1.0
procedureMetadata


Description: fixative

Time of Dissection  IMPC_GPO_013_001 | v1.0
procedureMetadata
Description: time_of_dissection

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**Somite Stage** IMPC_GPO_014_001 | v1.1

procedureMetadata

Description: somite_stage

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**Time of dark cycle start** IMPC_GPO_015_001 | v1.0

procedureMetadata

Description: time_of_dark_cycle_start

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**Time of dark cycle end** IMPC_GPO_016_001 | v1.0

procedureMetadata

Description: time_of_dark_cycle_end
Date equipment last calibrated  IMPC_GPO_017_001 | v1.1

procedureMetadata


Description: date_equipment_last_calibrated

Pale placenta  IMPC_GPO_018_001 | v1.0

simpleParameter


Options: no, yes, unobservable,