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

**Description:** placenta_development

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

**Placenta Morphology** IMPC_GPO_002_001 | v1.0

*simpleParameter*

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

**Description:** placenta_morphology

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

**Placenta Vasculature** IMPC_GPO_003_001 | v1.0

*simpleParameter*

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

**Description:** placenta_vasculature
Options: normal, abnormal, unobservable,

Placenta Size IMPC_GPO_004_001 | v1.0
simpleParameter


Description: placenta_size

Options: normal, abnormal, unobservable,

Umbilical cord morphology IMPC_GPO_005_001 | v1.0
simpleParameter


Description: umbilical_cord_morphology

Options: normal, abnormal, unobservable,

Comment on image IMPC_GPO_006_001 | v1.0
simpleParameter


Description: comment_on_image
Images IMPC_GPO_007_001 | v1.0
seriesMediaParameter


Description: images

Increments: Minimum 1

Experiment ID IMPC_GPO_008_001 | v1.0
procedureMetadata


Description: experimenter_id

Equipment ID IMPC_GPO_009_001 | v1.0
procedureMetadata


Description: equipment_id
Equipment Manufacturer IMPC_GPO_010_001 | v1.0

Description: equipment_manufacturer

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Equipment Model IMPC_GPO_011_001 | v1.0

Description: equipment_model

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Fixative IMPC_GPO_012_001 | v1.0

Description: fixative

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Time of Dissection IMPC_GPO_013_001 | v1.0

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Description: time_of_dissection

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**Somite Stage** IMPC_GPO_014_001 | v1.1

Description: somite_stage

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

Description: time_of_dark_cycle_start

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

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,