Gross Morphology Placenta E18.5 IMPC_GPP_001

Purpose

To assess visible morphological defects in E18.5 placentas from lethal or subviable 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**: E18.5 and Older
- 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 placenta 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_GPP_001_001 | v1.0

*simpleParameter*

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

**Description:** placenta_development

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

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**Placenta Morphology** IMPC_GPP_002_001 | v1.0

*simpleParameter*

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

**Description:** placenta_morphology

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

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**Placenta Vasculature** IMPC_GPP_003_001 | v1.0

*simpleParameter*

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

**Description:** placenta_vasculature
**Placenta Size** IMPC_GPP_004_001 | v1.0

*simpleParameter*

**Description:** placenta_size

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

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**Umbilical cord morphology** IMPC_GPP_005_001 | v1.0

*simpleParameter*

**Description:** umbilical_cord_morphology

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

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**Comment on image** IMPC_GPP_006_001 | v1.0

*simpleParameter*

**Description:** comment_on_image
Images

**IMPC_GPP_007_001 | v1.0**

*seriesMediaParameter*

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

*Description*: images

*Increments*: Minimum 1

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Experimenter ID

**IMPC_GPP_008_001 | v1.0**

*procedureMetadata*

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

*Description*: experimenter_id

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Equipment ID

**IMPC_GPP_009_001 | v1.0**

*procedureMetadata*

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

*Description*: equipment_id
**Equipment Manufacturer**  IMPC_GPP_010_001 | v1.0


Description: equipment_manufacturer

**Equipment Model**  IMPC_GPP_011_001 | v1.0


Description: equipment_model

**Fixative**  IMPC_GPP_012_001 | v1.0


Description: fixative

**Time of Dissection**  IMPC_GPP_013_001 | v1.0

Description: time_of_dissection

Somite Stage IMPC_GPP_014_001 | v1.1

Description: somite_stage

Time of dark cycle start IMPC_GPP_015_001 | v1.0

Description: time_of_dark_cycle_start

Time of dark cycle end IMPC_GPP_016_001 | v1.0

Description: time_of_dark_cycle_end
**Date equipment last calibrated** IMPC_GPP_017_001 | v1.1

**procedureMetadata**

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

**Description:** date_equipment_last_calibrated

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**Placenta color** IMPC_GPP_018_001 | v1.0

**simpleParameter**

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

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