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

*Description:* placenta\_development

*Options:* normal, abnormal, unobservable,

**Placenta Morphology**  IMPC\_GPO\_002\_001 | v1.0

*Description:* placenta\_morphology

*Options:* normal, abnormal, unobservable,

**Placenta Vasculature**  IMPC\_GPO\_003\_001 | v1.0

*Description:* placenta\_vasculature
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

Description: images

Increments: Minimum 1

Experimenter ID  IMPC_GPO_008_001 | v1.0

Description: experimenter_id

Equipment ID  IMPC_GPO_009_001 | v1.0

Description: equipment_id
**Equipment Manufacturer** IMPC_GPO_010_001 | v1.0

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

Description: equipment_manufacturer

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**Equipment Model** IMPC_GPO_011_001 | v1.0

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

Description: equipment_model

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**Fixative** IMPC_GPO_012_001 | v1.0

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

Description: fixative

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

Req. Analysis: false  
Req. Upload: true  
Is Annotated: false
Description: time_of_dissection

Somite Stage  IMPC_GPO_014_001 | v1.1

Description: somite_stage

Time of dark cycle start  IMPC_GPO_015_001 | v1.0

Description: time_of_dark_cycle_start

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*

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

**Description:** date_equipment_last_calibrated

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**Pale placenta**  IMPC_GPO_018_001 | v1.0

*simpleParameter*

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

**Options:** no, yes, unobservable,