**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 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_GPP_001_001 | v1.0

simpleParameter


Description: placenta_development

Options: normal, abnormal, unobservable,

**Placenta Morphology**  IMPC_GPP_002_001 | v1.0

simpleParameter


Description: placenta_morphology

Options: normal, abnormal, unobservable,

**Placenta Vasculature**  IMPC_GPP_003_001 | v1.0

simpleParameter


Description: placenta_vasculature
Options: normal, abnormal, unobservable,

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**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

Description: images
Increments: Minimum 1

Experimenter ID  IMPC_GPP_008_001 | v1.0

Description: experimenter_id

Equipment ID  IMPC_GPP_009_001 | v1.0

Description: equipment_id
Equipment Manufacturer  IMPC_GPP_010_001  |  v1.0

Description: equipment_manufacturer

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Equipment Model  IMPC_GPP_011_001  |  v1.0

Description: equipment_model

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Fixative  IMPC_GPP_012_001  |  v1.0

Description: fixative

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Time of Dissection  IMPC_GPP_013_001  |  v1.0

Description: procedureMetadata
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,