**Gross Morphology Placenta E12.5 IMPC_GP M_001**

**Purpose**

To assess visible morphological defects in E12.5 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**: E12.5
- 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_GPM_001_001 | v1.0

*simpleParameter*

**Description:** placenta_development

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

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

**Placenta Morphology** IMPC_GPM_002_001 | v1.0

*simpleParameter*

**Description:** placenta_morphology

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

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

**Placenta Vasculature** IMPC_GPM_003_001 | v1.0

*simpleParameter*

**Description:** placenta_vasculature

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

Placenta Size IMPC_GPM_004_001 | v1.0


Description: placenta_size

Options: normal, abnormal, unobservable,

Umbilical cord morphology IMPC_GPM_005_001 | v1.0


Description: umbilical_cord_morphology

Options: normal, abnormal, unobservable,

Comment on image IMPC_GPM_006_001 | v1.0


Description: comment_on_image
Images IMPC_GPM_007_001 | v1.0


Description: images

Increments: Minimum 1

Experimenter ID IMPC_GPM_008_001 | v1.0


Description: experimenter_id

Equipment ID IMPC_GPM_009_001 | v1.0


Description: equipment_id
Equipment Manufacturer  IMPC_GPM_010_001 | v1.0

Description: equipment_manufacturer

Equipment Model  IMPC_GPM_011_001 | v1.0

Description: equipment_model

Fixative  IMPC_GPM_012_001 | v1.0

Description: fixative

Time of Dissection  IMPC_GPM_013_001 | v1.0
**Somite Stage** IMPC_GPM_014_001 | v1.1

*procedureMetadata*

**Description:** somite_stage

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**Time of dark cycle start** IMPC_GPM_015_001 | v1.0

*procedureMetadata*

**Description:** time_of_dark_cycle_start

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**Time of dark cycle end** IMPC_GPM_016_001 | v1.0

*procedureMetadata*

**Description:** time_of_dark_cycle_end
**Date equipment last calibrated** IMPC_GPM_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_GPM_018_001 | v1.0

simpleParameter

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

Options: normal, abnormal, unobservable,