Gross Morphology Placenta E9.5 IMPC_GP L_001

Purpose
To assess visible morphological defects in E9.5 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**: E9.5 and Younger
- 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/GPL_001_001 | v1.0

Description: placenta_development
Options: normal, abnormal, unobservable,

Placenta Morphology  IMPC/GPL_002_001  | v1.0
simpleParameter

Description: placenta_morphology
Options: normal, abnormal, unobservable,

Placenta Vasculature  IMPC/GPL_003_001  | v1.0
simpleParameter

Description: placenta_vasculature
Options: normal, abnormal, unobservable,

Placenta Size  IMPC/GPL_004_001  | v1.0
simpleParameter

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

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

---

**Umbilical cord morphology** IMPC/GPL_005_001 | v1.0

simpleParameter

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

**Description:** umbilical_cord_morphology

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

---

**Comment on image** IMPC/GPL_006_001 | v1.0

simpleParameter

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

**Description:** comment_on_image

---

**Images** IMPC/GPL_007_001 | v1.0

seriesMediaParameter

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

**Description:** images

**Increments:** Minimum 1
**Experimenter ID**  IMPC/GPL_008_001 | v1.0

```
procedureMetadata
```

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

Description: experimenter_id

**Equipment ID**  IMPC/GPL_009_001 | v1.0

```
procedureMetadata
```

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

Description: equipment_id

**Equipment Manufacturer**  IMPC/GPL_010_001 | v1.0

```
procedureMetadata
```

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

Description: equipment_manufacturer

**Equipment Model**  IMPC/GPL_011_001 | v1.0

```
procedureMetadata
```

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

Description: equipment_model
**Fixative** IMPC/GPL_012_001 | v1.0

*procedureMetadata*

**Time of Dissection** IMPC/GPL_013_001 | v1.0

*procedureMetadata*

**Somite Stage** IMPC/GPL_014_001 | v1.0

*procedureMetadata*
Time of dark cycle start IMPC_GPL_015_001 | v1.0

**procedureMetadata**

**Description:** time_of_dark_cycle_start

---

Time of dark cycle end IMPC_GPL_016_001 | v1.0

**procedureMetadata**

**Description:** time_of_dark_cycle_end

---

Date equipment last calibrated IMPC_GPL_017_001 | v1.1

**procedureMetadata**

**Description:** date_equipment_last_calibrated