OPT E9.5 IMPC_EOL_002

Purpose

To assess morphological defects in E9.5 embryos from lethal strains with OPT.

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.
- Collect embryos at E9.5 with 3 minimum homozygous and 1 littermate control
- Ensure embryos are bleed as much as possible.
- Reconstruct the scans according to Mark’s instructions

Procedure

1. Set up timed mating with heterozygous animals. Dissect and collect >=3 homozygote embryos.
2. Process the embryos using the centre’s staining and embedding protocol.
   Centre-specific methods are recorded within a document
3. Scan and generate reconstructions of embryos.

Notes

Embryos may be processed for Histopathology.

Parameters and Metadata

Date of Annotation IMPC_EOL_053_001 | v1.0

procedureMetadata


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Embryo reconstruction IMPC_EOL_001_001 | v1.1
<table>
<thead>
<tr>
<th>Field</th>
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<tr>
<td>Experimenter ID</td>
<td>IMPC_EOL_002_001</td>
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<td>Equipment ID</td>
<td>IMPC_EOL_003_001</td>
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**Image Pixel Size**  
IMPC_EOL_006_001 | v1.0

Unit Measured: μm

**E9.5 OPT preparation protocol**  
IMPC_EOL_007_001 | v1.0

**Date equipment last calibrated**  
IMPC_EOL_008_001 | v1.0

**Date of Sacrifice**  
IMPC_EOL_009_001 | v1.0
**Date Preparation Finished**  IMPC_EOL_010_001 | v1.1

**Date of Scan**  IMPC_EOL_011_001 | v1.0

**Screenshots**  IMPC_EOL_012_001 | v1.1

**Hindbrain**  IMPC_EOL_013_001 | v1.0

Increments: Minimum 1


**4th ventricle** IMPC_EOL_014_001 | v1.0

**Mesencephalic vesicle** IMPC_EOL_015_001 | v1.0

**Forebrain** IMPC_EOL_016_001 | v1.0
Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,
Infundibular recess of 3rd ventricle IMPC_EOL_020_001 | v1.0

simpleParameter


Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

Rathke's pouch IMPC_EOL_021_001 | v1.0

simpleParameter


Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

Optic vesicle IMPC_EOL_022_001 | v1.0

simpleParameter


Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

Otocyst IMPC_EOL_023_001 | v1.0

simpleParameter
1st branchial arch  IMPC_EOL_024_001 | v1.0

1st arch artery  IMPC_EOL_025_001 | v1.0

2nd branchial arch  IMPC_EOL_026_001 | v1.0
**2nd arch artery**  IMPC_EOL_027_001  |  v1.0

**simpleParameter**

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

Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

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**Oropharynx**  IMPC_EOL_028_001  |  v1.0

**simpleParameter**

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Is Annotated: true

Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

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**3rd branchial arch**  IMPC_EOL_029_001  |  v1.0

**simpleParameter**

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3rd arch artery  IMPC_EOL_030_001  |  v1.0

Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

Aortic sac  IMPC_EOL_031_001  |  v1.0

Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

Common atrial chamber  IMPC_EOL_032_001  |  v1.0

Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

Atrioventricular canal  IMPC_EOL_033_001  |  v1.0

Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,
Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

Heart ventricle IMPC_EOL_034_001 | v1.0
simpleParameter


Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

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Primitive heart tube cardiac muscle IMPC_EOL_035_001 | v1.0
simpleParameter


Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

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Dorsal aorta IMPC_EOL_036_001 | v1.0
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Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,
**Hepatic primordium** IMPC_EOL_037_001 | v1.0

*simpleParameter*

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

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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**Hindgut** IMPC_EOL_038_001 | v1.0

*simpleParameter*

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

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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**Forelimb bud** IMPC_EOL_039_001 | v1.0

*simpleParameter*

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

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,

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**Neural tube** IMPC_EOL_040_001 | v1.0

*simpleParameter*
Caudal neuropore  IMPC_EOL_041_001 | v1.0
simpleParameter

Somite  IMPC_EOL_042_001 | v1.0
simpleParameter

Somite count  IMPC_EOL_043_001 | v1.0
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Delayed embryonic development  IMPC_EOL_044_001 | v1.0
simpleParameter


Options: yes, no,

Vitelline artery  IMPC_EOL_045_001 | v1.0
simpleParameter


Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

Umbilical vein  IMPC_EOL_046_001 | v1.0
simpleParameter


Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

Foregut  IMPC_EOL_047_001 | v1.0
simpleParameter
Midgut  IMPC_EOL_048_001  | v1.0

Pericardial cavity  IMPC_EOL_049_001  | v1.0

Peritoneal cavity IMPC_EOL_050_001  | v1.0
Sinus venosus IMPC_EOL_051_001 | v1.0

simpleParameter


Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,

Annotator ID IMPC_EOL_052_001 | v1.0

procedureMetadata