MicroCT E9.5 IMPC_EML_002

Purpose

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

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 manufacturer’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

**Camera to Source** IMPC_EML_010_001 | v1.0

**procedureMetadata**

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

**UnitMeasured:** mm
**Equipment Version** IMPC_EML_006_001 | v1.0

*procedureMetadata*

**Image Pixel Size** IMPC_EML_007_001 | v1.0

*procedureMetadata*

- **Unit Measured:** µm

**Date of Scan** IMPC_EML_014_001 | v1.0

*procedureMetadata*

**Equipment Manufacturer** IMPC_EML_004_001 | v1.0

*procedureMetadata*

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

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

- **Req. Analysis:** false  
- **Req. Upload:** true  
- **Is Annotated:** false
Equipment ID  IMPC_EML_003_001 | v1.0
procedureMetadata


E9.5 MicroCT Preparation protocol  IMPC_EML_008_001 | v1.0
procedureMetadata


Screenshots  IMPC_EML_017_001 | v1.1
seriesMediaParameter


Object to Source  IMPC_EML_009_001 | v1.0
procedureMetadata


Unit Measured: mm
**Experimenter ID** IMPC_EML_002_001 | v1.0

procedureMetadata

**Source Voltage** IMPC_EML_015_001 | v1.1

procedureMetadata

**Date equipment last calibrated** IMPC_EML_011_001 | v1.0

procedureMetadata

**Equipment Model** IMPC_EML_005_001 | v1.0

procedureMetadata
**Hindbrain** IMPC_EML_018_001 | v1.0

simpleParameter


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

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**4th ventricle** IMPC_EML_019_001 | v1.0

simpleParameter


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

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**Mesencephalic vesicle** IMPC_EML_020_001 | v1.0

simpleParameter


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

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**Forebrain** IMPC_EML_021_001 | v1.0

simpleParameter

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

Telecenphalic (lateral) ventricle IMPC_EML_022_001 | v1.0
simpleParameter


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

Rhombomeres IMPC_EML_023_001 | v1.0
simpleParameter


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

Notochord IMPC_EML_024_001 | v1.0
simpleParameter


Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,
**Infundibular recess of 3rd ventricle** IMPC_EML_025_001 | v1.0

simpleParameter

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

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

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**Rathke's pouch** IMPC_EML_026_001 | v1.0

simpleParameter

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

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

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**Optic vesicle** IMPC_EML_027_001 | v1.0

simpleParameter

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

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

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**Otocyst** IMPC_EML_028_001 | v1.0

simpleParameter
1st branchial arch  IMPC_EML_029_001  | v1.0
simpleParameter

Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,
2nd arch artery  IMPC_EML_032_001 | v1.0

simpleParameter


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

Oropharynx  IMPC_EML_033_001 | v1.0

simpleParameter


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

3rd branchial arch  IMPC_EML_034_001 | v1.0

simpleParameter


Options: present, absent, abnormal, unobservable, ambiguous, imageOnly,
3rd arch artery IMPC_EML_035_001 | v1.0

simpleParameter

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

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

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Aortic sac IMPC_EML_036_001 | v1.0

simpleParameter

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

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

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Common atrial chamber IMPC_EML_037_001 | v1.0

simpleParameter

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

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

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Atrioventricular canal IMPC_EML_038_001 | v1.0

simpleParameter

Req. Analysis: false
Req. Upload: true
Is Annotated: true
**Heart ventricle** IMPC_EML_039_001 | v1.0

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

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**Primitive heart tube cardiac muscle** IMPC_EML_040_001 | v1.0

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

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**Dorsal aorta** IMPC_EML_041_001 | v1.0

**Options:** present, absent, abnormal, unobservable, ambiguous, imageOnly,
**Hepatic primordium** IMPC_EML_042_001 | v1.0

simpleParameter


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

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**Hindgut** IMPC_EML_043_001 | v1.0

simpleParameter


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

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**Forelimb bud** IMPC_EML_044_001 | v1.0

simpleParameter


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

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**Neural tube** IMPC_EML_045_001 | v1.0

simpleParameter
**Caudal neuropore** IMPC_EML_046_001 | v1.0

*simpleParameter*

**Somite** IMPC_EML_047_001 | v1.0

*simpleParameter*

**Somite count** IMPC_EML_048_001 | v1.0

*simpleParameter*
Delayed embryonic development  IMPC_EML_049_001  |  v1.0

simpleParameter

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

Options: yes, no,

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Vitelline artery  IMPC_EML_050_001  |  v1.0

simpleParameter

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

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

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Umbilical vein  IMPC_EML_051_001  |  v1.0

simpleParameter

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

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

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Foregut  IMPC_EML_052_001  |  v1.0

simpleParameter
Midgut  IMPC_EML_053_001 | v1.0

Pericardial cavity  IMPC_EML_054_001 | v1.0

Peritoneal cavity  IMPC_EML_055_001 | v1.0
**Sinus venosus** IMPC_EML_056_001 | v1.0

*simpleParameter*

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

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

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**Annotator ID** IMPC_EML_057_001 | v1.0

*procedureMetadata*

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

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**Date of Annotation** IMPC_EML_058_001 | v1.0

*procedureMetadata*

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