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Mouse perfusions and brain tissue processing

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We use this protocol and it's working

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Abstract

The protocol describes tissue processing for histological analyses and includes perfusions, brain fixation, and tissue harvesting from perfused rodents.

1 Inject sodium pentobarbital (600 mg/kg, i.p.) to sacrifice the mouse

2 Once the respiration is stopped, open the chest and place the cannula connected to a peristaltic pump into the heart. Make sure that the cannula has access to the ascending aorta.

3 Perfuse, first with 20 ml saline solution, kept at room temperature, and then with ice-cold 60 ml 4% (w/v) paraformaldehyde.

4 Quickly remove the brain and immerse in 4% paraformaldehyde for 24 hours.

5 For cryopreservation, place the brain in a 30% (w/v) sucrose solution.

6 Once sunk, section the brain on the coronal plane (35 µL) using a freezing microtome.