Mouse perfusions and brain tissue processing

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ABSTRACT

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

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Protocol status: Working
We use this protocol and it's working
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 using a freezing microtome.