




Jul 23, 2020

Snap freezing brains

Molly Brennan¹, Olivier George¹¹University of California, San Diego**1** Works for me This protocol is published without a DOI.**George Lab**
Tech. support email: olgeorge@ucsd.edu Molly Brennan

PROTOCOL CITATION

Molly Brennan, Olivier George 2020. Snap freezing brains. **protocols.io**
<https://protocols.io/view/snap-freezing-brains-biv4ke8w>



LICENSE

This is an open access protocol distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

CREATED

Jul 22, 2020

LAST MODIFIED

Jul 23, 2020

PROTOCOL INTEGER ID

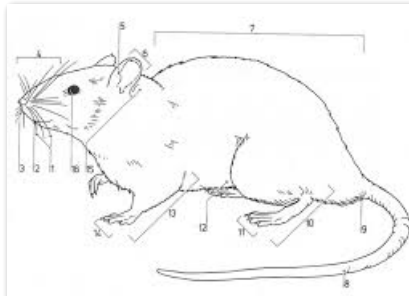
39580

1 Snap freezing brains

euthanize animal in either a bell jar of Isoflorane or in CO₂ chamber.



once animal is dead you then can use scissors and or a gullitoin to remove head at nape of neck



2 Brain Removal

- Use a pair of scissors to cut connective tissue under the skin, reaching in between the eyes
- Cut skin open, exposing muscles on top of skull to the eyes
- Use scalpel, cut muscle connecting to the skull bone on both sides
- Carefully place bone cutter against the inside of the skull, and make cuts following the scalpel incision
- Lift the occipital, parietal, and frontal bones using forceps, fully exposing the brain
- Cut membrane on top and scoop brain out of the skull; cut optical nerves and connective tissue

3 Once brain is removed place it in -38-40 degree temperture of Isopentane and or 2 methylbutane



4 Once brain is submerged into the 2 methylbutane it needs to stay there for 30-45 seconds or until brain is frozen do not have temp lower than -40 degrees or the brain will crack and or split in two. VERY IMPORTANT

5 take brain out and place in foil with a label or vial. your choice. store in -80 freezer.