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S Isoflurane Anesthesia Protocol

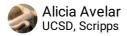
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1 Works for me



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ABSTRACT

protocol describes how to use anesthesia machine with isoflurane to anesthetize a rat.

ATTACHMENTS

iso machine.JPG IMG_8179.JPG

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KEYWORDS

anesthesia, isoflurane, rat

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GUIDELINES

Ensure the anesthesia box that contains the rat has a fully closed and locked lid. Ensure that the nose cone used to maintain anesthesia is tightly around the rats nose. Perform procedure in a hood for safety and wear lab coat and gloves. Turn off the gas flow as soon as you are done using it for anesthesia.

MATERIALS TEXT

Paper towels

A glove

Tape

Isoflurane cart (Tape, extra isoflurane, oxygen tanks, black wrench to open oxygen tank) Rat

SAFETY WARNINGS

- Make sure at least one of the valves are open
- Always check oxygen levels and isoflurane levels
- Turn off isoflurane using the dial when you are not using it

BEFORE STARTING

- Handle rat beforehand to reduce stress
- Bring rat from vivarium (or wherever it is kept) to surgery room in a clean cage

Setup

- 1 Make sure you have a surgery room booked
 - 1.1 Some sort of table or surgical workbench to transfer rat to when fully anesthetized
- 9 Grab isoflurane cart and/or supplies and bring it to the surgery room
- 3 Place paper towels in the plastic container
- 4 Make sure the tubing is tightly sealed together (if tape is needed add tape)

	4.2	Make sure the valves are parallel with the tubing (the pink and orange tubing)		
5	Use larger thicker tape to secure white tubing down onto the surgery table (where you want it on the workbench)			
6	Snip open a little hole in a glove and place it over the tubing for the rat's mouth as a nose cone for anesthesia during surgical procedures			
7	Check isoflurane level (make sure it is between the minimum and maximum fill lines)			
	i	If the isoflurane level is low then unscrew the cap and slowly add in the isoflurane Set isoflurane regulator on top-adjust dial as appropriate		
8	Use the black wrench to open the oxygen tank			
	8.1	Turn to the right to open		
9	Look at the oxygen regulator and turn the green knob so the silver ball is in the middle of the 1 on the regulator.			
10	Place the rat in the plastic box and close the lid			
11	Adjust isoflurane dial as needed			
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Make sure all of the tubing is in the correct place and connected

4.1

	11.1	Start at 4 (if female)
	11.2	Start at 5 (if male), heavier animals usually need more isoflurane to become anesthetized
12	Keep rat under	r for a few minutes or until the rat's breathing slows down
13	Take the rat o	ut of the plastic container and place it onto the surgery table
14	Do a toe pinch using forceps to make sure the animal does not feel any pain	
	14.1	If the rat has a pain reflex or a jerk motion of the limb then place back into the plastic container and continue anesthesia
	14.2	If the rat has no pain reflex or jerk then continue
15	Put the tubing that has the glove with the slit over the rat's mouth and nose to maintain anesthesia	
16	Then when the rat is fully anesthetized you can proceed with your surgery	
Turning	g off machine	
17		oflurane dial (back to 0)

- 18 Take the black wrench to close the oxygen tank 18.1 Turn to the left to close Troubleshooting 19 Check to make sure there is no tubing loose/disconnected 19.1 In case there is a leak 19.2 Or if something is not working 20 Adjust dial 20.1 More or less isoflurane depending on how the rat is doing Cleanup and Transport 21 Press the green oxygen flush button 21.1 This clears out oxygen from the tubing
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Remove the paper towels and dispose of them

- 23 Clean out the plastic box with paper towels and water only
- 24 Return isoflurane machine and supplies to its storage place
- 25 Place cage where the dirty cages go to be cleaned