

Description of procedure:

Blood collection from the ventral tail artery allows for the maximum allowable sample volume with minimal trauma to the animal. Repeated collection is allowed. Anesthesia is required for this type of blood collection. For information regarding maximum blood collection volume please refer to the [UCSF Blood Collection Guidelines](#).

Supplies:

- Isoflurane anesthesia system
- Sterile 23-25 Butterfly Infusion set
- Blood collection tubes
- Gauze sponges
- Heat pack
- Eye ointment
- Ethanol wipes

Procedure Steps:

1. The rat will be anesthetized and placed in dorsal recumbency. Animals should be placed on a rechargeable heat pack or circulating warm water pad to keep them warm during anesthesia and eye ointment must be applied.
2. Arterial dilatation can be induced by applying slight pressure 1 to 2 inches from the tip of the tail with a finger.
3. Cut the Butterfly infusion set tubing so that only about 0.5 inches remain.
4. Visualize the artery by rotating the tail slightly from one side to the other.
5. Disinfect the target area with an ethanol wipe.
6. Insert the needle bevel up into the tail artery entering at a 20-30 degree angle (see Image 1).
 - a. If placed properly the tubing will immediately begin to fill with blood (see Image 2).
 - b. If blood flow is slow or stops, slowly withdraw the needle a short distance to re-establish flow.
7. Retries should be done in a more proximal location on the tail and a new needle is recommended.
8. Apply gentle pressure with a piece of gauze on the site to cease blood flow after needle withdrawal.
9. When animals are fully recovered, they can be returned to their cage.
10. Observe to make sure bleeding does not resume before returning to the rack.

If you would like training in the above technique, please contact the IACUC Training and Compliance staff by email at trainerIACUC@ucsf.edu (email become the main contact).

Agents:

This procedure requires anesthesia. Add anesthesia agents under section I.1. All agents administered to animals should be listed in the “Agents” section I.5 of RIO.

Potential adverse effects to be considered: Blood loss, hematoma

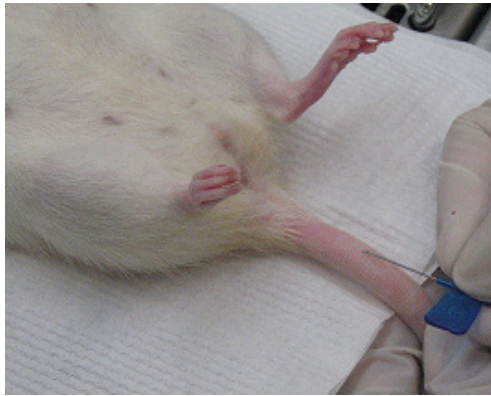


Image 1.



Image 2.