

**STANDARD OPERATING PROCEDURE
IACUC 101**

TAIL SNIPPING IN MICE
(Updated 6/26/01)

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PURPOSE:

To describe procedures used to obtain tissue needed for transgene identification in mice.

APPLICATION:

This procedure applies to colony breeders, researchers and technicians who collect tissue samples from mice for transgene identification.

NOTES:

PCR techniques may require less tissue and allow use of auricular flap tissue obtained during the ear punch identification procedure. Southern Blot testing may require more material and need tissue from the tail.

Standard Techniques:

Ear Punching: Ear punching does not require anesthesia in mice thru 21 days of age. Several tissue samples approximately 0.5 mm in diameter can be obtained.

Tail Snipping: Anesthesia is not required in mice through 21 days of age if less than 1 cm of skin is taken (skin can be pushed down toward the tip of the tail so that the vertebrae are avoided). Innervation of the tip of the tail is minimal at this age (Pain Category 1).

Tail tip samples greater than 1 cm in length will probably damage the coccygeal vertebrae and will require anesthesia in mice of any age. Anesthesia is required for any tail snipping if animals are greater than 21 days old (Pain Category 2).

Anesthesia:

Local: FluorEthyl™, cetyl chloride, or similar hypothermic methods.

Injectable: Avertin™

Inhalant: Inhalant anesthetics (halothane or isoflurane, with appropriate safety precautions for personnel) or CO₂

PROCEDURES FOR TAIL SNIPPING

Gloves should be worn when handling laboratory animals

Anesthetize mouse (if required).

Gently, but securely, restrain mouse.

Swab tail with alcohol (povidone iodine or chlorhexidine solutions may interfere with the DNA identification tests) .

Push skin toward tip of tail.

Snip skin sample (with sterile instrument[s]).

Apply gentle compression until hemostasis occurs.

Release mouse.

Observe mouse for bleeding or abnormal behavior.

Check tail daily to ensure tip is healing.

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