

Miscellaneous

Item 3 – Tail Biopsy and Distal Phalanx (Toe) Biopsy of Rodents

Tail biopsy of rodents is often used to obtain tissue samples for genetic analysis.

For a single sample collection in an UNANESTHETIZED animal, the following criteria must be met:

- a. Sample length must not exceed 0.5 cm
- b. Animal must be 4 weeks of age or less
- c. Excisional tool (scalpel or scissors) must be sharp
- d. Bleeding must be controlled (if it exceeds 1-2 drops)

This will be considered a SUNY Upstate pain or distress category "C".

ANESTHESIA is required for any repeat biopsies, sample size > 0.5 cm, and/or animals older than 4 weeks. Bleeding must be controlled. Post-procedural analgesics may also be required. This must be determined in consultation with DLAR veterinary staff **PRIOR to collecting samples.** (4-6563).

If anesthesia is required, this procedure will be considered a SUNY Upstate pain or distress category "D".

Distal Phalanx (Toe) Biopsy is used as a method of identifying small rodents by using a predetermined numbering code and may simultaneously be used as a method to obtain biopsy tissue for genetic analysis.

For a single sample collection in an UNANESTHETIZED animal, the following criteria must be met:

- a. Animal must be 7 days of age or less
- b. The number of digits clipped is limited to one digit per rodent. If possible, it is preferable to remove digits from a hind paw rather than a forepaw. If the forepaw must be used, it is preferable to not cut the hallux ("dew claw" or "little toe" of the forepaw) as this may decrease the rodent's grasping ability.
- c. Excisional tool (scalpel or scissors) must be sharp
- d. Bleeding must be controlled (if it exceeds 1-2 drops)

This will be considered a SUNY Upstate pain or distress category "C".

The Institutional Animal Care and Use Committee (IACUC) encourages investigators to consider alternatives to biopsy such as utilizing ear punch tissue obtained during identification or using oral swabs to obtain cells from mucous membranes (contact DLAR for specific references). These techniques have been used successfully for genetic monitoring, especially when PCR techniques are utilized that require very little tissue.

Any exceptions to the above must be explained and approved in the IACUC protocol **PRIOR to being implemented.**

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