



STANDARD OPERATING PROCEDURE 805 ANIMAL IDENTIFICATION

1. PURPOSE

This Standard Operating Procedure (SOP) describes acceptable methods for identifying rodents and Amphibians.

2. RESPONSIBILITY

Principal investigator (PI) and their research staff.

3. MATERIALS

- 3.1. Cage cards
 - 3.2. Non-toxic, indelible markers
 - 3.3. Tattoo machine and ink
 - 3.4. 0.3ml insulin syringe
 - 3.5. Ear punch
 - 3.6. Ear tags and applier
 - 3.7. Microchip system
 - 3.8. VIE (Visible Implant Elastomer) Tags
 - 3.9. Analgesics
 - 3.10. Anesthetics (general and local)
 - 3.11. Skin disinfectant (e.g., 4% chlorhexidine solution)
 - 3.12. 70% alcohol
 - 3.13. Clean, sharp iris scissors or disposable scalpel blade
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4. RODENT PROCEDURES

- 4.1. Cage cards:
 - 4.1.1. Use cage cards to identify individually housed mice or a single breeding pair.
 - 4.1.2. Use cage cards to identify groups of mice on protocols where individual identification is unnecessary.
- 4.2. Temporary markings:
 - 4.2.1. Temporary marking can be used for short-term individual identification.

- 4.2.2. Use a non-toxic, indelible marker to write numbers, bars, or other distinguishable markings, on the tail or the ears.
- 4.2.3. If temporary marking is to be used for a duration exceeding a week, repeat markings every 2-3 days.
- 4.3. Tattooing:
 - 4.3.1. This procedure is performed under general or local anesthesia. Refer to SOP.
 - 4.3.2. Replace the syringe after three animals.
- 4.4. Micro-tattooing:
 - 4.4.1. Use a 0.3ml insulin syringe to inject tattoo ink into the toe pads, ears, or tail.
 - 4.4.2. This method is suitable for both neonates and adults.
 - 4.4.3. Use a simple code to limit the number of toes tattooed whenever possible.
 - 4.4.4. Have the identification chart readily available in the animal room to allow prompt identification of individuals.
- 4.5. Ear notching/ ear punching:
 - 4.5.1. **Do not** use this method in rodents under two weeks.
 - 4.5.2. Following an identification chart, restrain the animal securely using the ear punch, punch holes, and notches in the ears.
 - 4.5.3. Use a simple code to limit the number of notches/punches.
 - 4.5.4. Have the identification chart readily available in the animal room to allow prompt identification of individuals.
 - 4.5.5. Use the excised tissue as a sample for genotyping, replacing the need for a tail biopsy.
- 4.6. Microchips:
 - 4.6.1. Use appropriate general anesthesia and analgesia to implant the microchip. Refer to SOPs.
 - 4.6.2. Implant microchips subcutaneously in the neck area.
 - 4.6.3. **Do not** implant microchips in animals less than three weeks old.
 - 4.6.4. Apply disinfectant on the skin (e.g., 2% chlorhexidine solution).
 - 4.6.5. Using the implanter, inject the microchip subcutaneously into the neck area.
 - 4.6.6. Have available a compatible reader to allow identification of the mice.
 - 4.6.7. Reuse microchips only after proper cleaning and sterilization (follow the manufacturer's recommendation).

5. AMPHIBIANS PROCEDURES

- 5.1 Cage cards:
 - 5.1.1. Use cage cards to identify individually housed animals.
- 5.2. Natural marking:
 - 5.2.1. Useful for small numbers of animals.
 - 5.2.2. Facilitated by digital photography.
 - 5.2.3. Patterns can change over time. In very young or albino animals, patterns are challenging to see.
- 5.3 Visible implement elastomer (VIE):
 - 5.3.1 A range of colors and injection sites combine to produce many individual codes.
 - 5.3.2 It can be used in smaller animals.

5.3.3 Low visibility of markers in some species due to skin pigmentation.

5.4 Microchip transponders:

5.4.1 Use appropriate general anesthesia and analgesia to implant the microchip. Refer to SOPs.

5.4.2 Implant microchips subcutaneously into the dorsal lymphatic sacs or intracoelomic into the left caudal body cavity.

5.4.3 **Do not** implant microchips in animals less than three weeks old.

5.4.4 Have available a compatible reader to allow identification of the animal.

5.4.5 Reuse microchips only after proper cleaning and sterilization (follow the manufacturer's recommendation).

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Approved by the BGU Animal Policy and Welfare Oversight Committee