



RODENT IDENTIFICATION POLICY

Overview/Purpose

Individual animal identification is important for animal colony management, animal health/medical records, and for research data interpretation. Several methods of identification exist including ear punch/notch, ear tags, microchip transponders, tattoos, and toe clipping. **Toe-clipping must be scientifically justified and approved by the IACUC when other individual identification methods are not feasible.**

Requirements

Study team members must be appropriately trained for animal handling and identification methods. Training is available free of charge:

<http://ular.osu.edu/training/animal-handling-and-technique-training/>.

1. **Markers and Dyes**- short term options which require reapplication (every 3-4 days) include nontoxic permanent markers to mark the tail, ear, or fur or human hair dye or marking sprays to mark the fur. Specialized "animal markers" use a nontoxic pigment that remains on the fur for 6-12 weeks.
2. **Ear punch/notch** – Rodents must be firmly restrained and all instrumentation must be sharp.
3. **Ear tags** – Tags must be appropriately sized for the rodent species and age and are available in stainless steel. Proper placement is necessary to prevent auricular irritation or trauma.
4. **Microchip transponders** – Aseptic technique must be used to insert (subcutaneous or intraperitoneal) sterile transponders.
5. **Tattoo (ink injection)** – Tattoo devices are used to permanently mark the dermis of the tail, toes, or other sites as needed. Rodents must be appropriately restrained.
6. **Toe-clipping** – the use of this method is only appropriate when tissue samples are used for genotyping purposes. **Additional justification is required to obtain IACUC approval.** Toe clipping must only be used in altricial pre-weanling rodents after the toes are no longer webbed and before they reach 8 days of age. Instrumentation must be sharp and only 1 digit may be removed per rodent. The hind paw must be used unless scientific justification is provided to use the front paw.

Applicable Regulations

1. Castelhana-Carlos MJ, Sousa N, Ohl F, Baumans V. Identification Methods in Newborn C57BL/6 Mice: A Developmental and Behavioral Evaluation. *Laboratory Animals* 2010; DOI: 10.1258/1a.2009.009044.
2. Schaefer D, Asner I, Seifert B, Bürki K, Cinelli P. Analysis of Physiological and Behavioral Parameters in Mice after Toe Clipping as Newborns. *Laboratory Animals* 2010; 44:7-13.

3. Guide for the Care and Use of Laboratory Animals, National Research Council, National Academy Press, 2011, page 75.
4. Guidelines for Toe Clipping of Rodents. NIH.
http://oacu.od.nih.gov/ARAC/documents/Toe_Clipping.pdf

References

1. A primer on rodent identification methods, L Wang, *Lab Animal* 34, 4 (2005).
2. Working Party Report: Report of the Federation of European Laboratory Animal Science Associations Working Group on animal identification, K Dahlborn et al, *Laboratory Animals* 2013; 47: 2–11.
3. Note: Animals can be ordered from vendors with identification numbers in place
<https://www.jax.org/jax-mice-and-services/customer-support/technical-support/breeding-and-husbandry-support/mouse-identification>
4. Supplier websites;
<https://animalid.com/>
<http://www.braintreesci.com/departments.asp?dept=37>
<https://www.stoeltingco.com/animal-markers.html>
https://www.rarc.wisc.edu/animal_health/experimental_techniques/rodent_methods_of_id.html

Related IACUC policy

1. <http://orrr.osu.edu/files/2013/07/Tissue-Sampling-Policy-for-Rodent-Genotyping.pdf>

History of Revisions

018-02 – Last reviewed and approved 06/17/2011

018-03 - The policy was formerly known as Methods of Rodent Identification and has been retitled to Rodent Identification. Changes were made to the requirements on the toe-clipping method. Approved 07/18/14.

018-04 – Requirements were revised to include markers and dyes as an identification method. A training statement was added. References were updated to reflect product information. Approved 06/16/17.