

## FLSC Standard Operating Procedure for Mouse Ear Tag Identification and PCR Sampling

**Equipment:** Ear tags  
Ear tag applier  
Transnetyx sample tray for punches

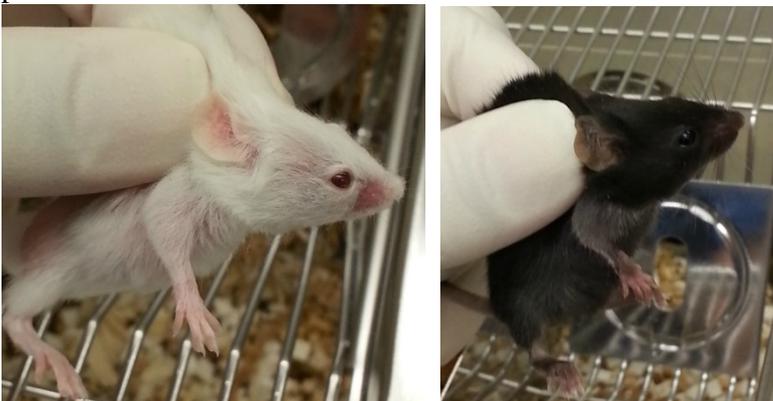
Ear punch  
Beaker for DNA Away/Eliminase  
Eppendorf tubes for ear punches

### Procedure:

1. Select the mice for identification. Select the ear tags to be used. Different strains or investigators may have tags with a specific alphabetic identifier before the numbers on the tags.
2. Gently remove a tag from the cardboard holder and orient into the applier so that the end with the hole is positioned over the notched area of the applier. The pointed end should be opposite the hole.



3. Scruff the mouse and restrain so that the ears are easily accessible. Place the right ear between the point of the tag and the hole of the tag being careful to position the tag well into the ear as far from the margins as possible.



4. Position the point of the ear tag as deeply in the concha of the ear as possible for tag numbers to be facing the back of the mouse. To have the ear tag numbers facing the nose of the mouse, place the point of the tag at the base of the back of the ear.



5. Firmly squeeze the applicator closed. The ear tag will pierce the ear and lock together.



6. Release the applicator and the tagged ear will fall out of the applicator.



7. Improper positioning will have the tag too close to the edge of the ear which makes it likely to be ripped from the pinna. Positioning improperly can catch the skin of the neck in the tag creating irritation, pain and restricted movement. This may induce self-trauma resulting in the tag being ripped from the ear or a foot caught in the tag. The ear tagging tool is disinfected between mouse strains by spraying with alcohol under a hood. Gloves are worn



8. As a safeguard, ear punches are done on the left (non-tagged) ear using a mirror version of the punch code. The number punched corresponds to the last number of the ear tag allowing for positive identification if an ear tag is lost. To save ear punches for PCR follow the Ear Punching for PCR Samples procedure.

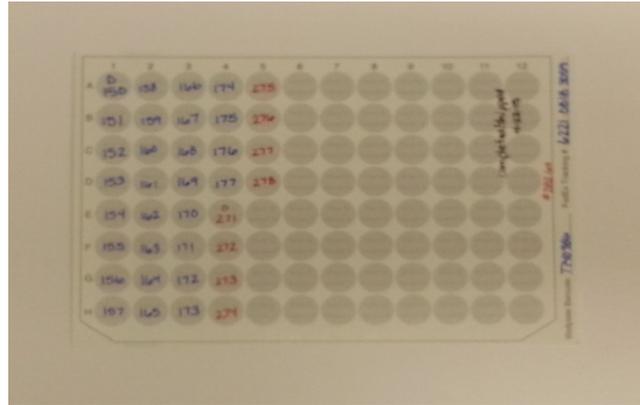
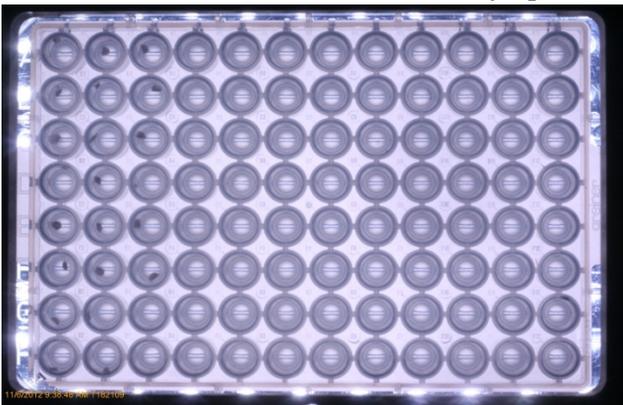


**Procedure:** Ear punching for PCR samples:

1. The ear punches must be first soaked in DNA Away or Eliminase to remove residual DNA or RNA.
2. A small beaker is filled with DNA Away or Eliminase and the ear punches placed punch side down into the beaker. Soak for at least 3 minutes.
3. Remove the ear punch and rinse with alcohol and wipe dry to sanitize between animals.
4. The ear punch is taken as above and the tissue is placed into an eppendorf tube labeled with the animal ID.



5. Punches are stored in the refrigerator awaiting pickup by the investigator.
6. Samples for Transnetyx are placed in the sample tray according to the instructions on the back of the tray log. The sample tray is refrigerated pending pickup or shipping. The sample tray log is filled out and then the information is entered on the Transnetyx portal.



7. Before storing ear punches, wash and rinse with alcohol and thoroughly dry to avoid rusting.