

UID Technical Tip: Subcutaneous Microchip (UC-1485) Implantation Procedure in the Mouse

Procedure Description

The following procedure describes the subcutaneous implantation of the UC-1485 RFID microchip (1.4mm x 8.5mm; UID Identification Solutions) in the mouse. The UC-1485 microchip is provided individually packaged in sterile, disposable cannula for quick and easy insertion using the UID microchip injector (UPGI-Q Pistol Grip Injector with Ejector). This procedure may be performed in the awake, physically restrained mouse provided the mouse is at least 3 weeks of age and the injection needle is no bigger than 2mm in outer diameter. The mouse must be anesthetized if less than 3 weeks of age or the injection needle is larger than 2mm in diameter. (Note that recent data indicates that the UC-1485 can be implanted without anesthesia on mice as young as 12 days old without any effect on their bodyweight growth curve – Contact UID for additional study details).



**Mouse Microchip
Animal ID
Programmable
Implantable**

The UID Mouse Programmable Microchip provides positive animal identification and programmed data with a single scan!

Implantation Procedure

1. Load the needle containing the microchip into the injector and twist the needle until the bevel is facing in upward position.
2. Restrain or anesthetize the mouse. Restraining can be facilitated with the use of commercially available restrainers that allow grasping of the mouse skin over the shoulders (i.e., Plexiglass restraint tube, ScruffGuard [ResearchDevices.com])
3. Wet the fur at the injection site with 70% ethanol to allow introduction of the needle into a sparsely haired area. This will minimize the introduction of hair into the subcutaneous space.
4. Grab the microchip injector and remove the plastic needle guard to expose the needle.
5. Tent the skin over the shoulder blades (mid-scapular region).

6. In smooth motion, insert the needle through the skin, bevel up, parallel to the spine, and directed toward the tail. The needle should be inserted at least 1cm into the inter-scapular space.
7. Slowly squeeze the handle of the injector while maintaining a fixed position to release the microchip in the inter-scapular space. Grasp the skin around the needle as the needle is withdrawn to prevent the microchip from slipping out.
8. Withdraw the needle and discard directly in the sharps container by squeezing the ejector lever.
9. Pinch or flatten the skin closed at the point of injection. This also prevents the microchip from following the trajectory of the needle out of the skin. Continue to apply pressure to provide hemostasis for any potential skin bleeding.
10. If needed, the injection entry point may also be closed with tissue glue or a medical grade cyanoacrylate adhesive (i.e., Surgi-Lock)
11. Remove the animal from the restraint device and scan the microchip with a compatible reader to confirm and record the identification code.

