

## UID Technical Tip: Intraperitoneal Microchip (UCT-2112 or UC-2112) Implantation Procedure in the Mouse

### Procedure Description

The following procedure describes the intraperitoneal implantation of the UCT-2112 Temperature Microchip (2.1mm x 13mm; UID Identification Solutions) in the mouse. The UCT-2112 Temperature 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 is typically performed in the anesthetized mouse after disinfecting the injection site. The intraperitoneal microchip injection should be made into the lower right quadrant of the abdomen to avoid damage to the urinary bladder, cecum, liver and other abdominal organs.



### UCT-2112 Microchip

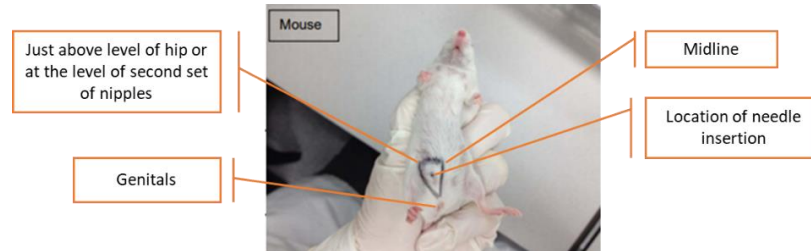
- Animal ID
- Temperature
- Programmable
- Implantable

*The UID Temperature Programmable Microchip provides positive animal identification, accurate core body temperature readings and programmed data all with a single scan!*

### Microchip Injection Procedure

1. Load the needle containing the microchip into the injector and twist the needle until the bevel is facing in upward position.
2. Anesthetize the animal using either an inhalable (i.e., Isoflurane) or injectable (i.e., Xylazine<sup>®</sup> and Ketamine<sup>®</sup>, or sodium pentobarbital) anesthetic.
3. Place the mouse on its back, preferably in the head-down position to assist in sliding the organs cranially to avoid puncturing them.
4. Identify anatomical landmarks in order to inject into the appropriate area of the abdomen. The injection site should be in the animal's lower right quadrant to avoid damage to the urinary bladder, cecum, liver and other abdominal organs.

5. Locate the injection site in the lower quadrant of the abdomen, lateral to the animal's midline.



6. Using a sterile swab, disinfect the injection site with 70% ethanol by working outwardly in ever widening circles. With a new sterile swab, apply iodine over the injection site in a similar fashion. Repeat the ethanol and iodine scrub one more time.
7. Grab the microchip injector and remove the plastic needle guard to expose the needle.
8. Insert the needle with the bevel facing “up” into the lower right quadrant (bevel up) at a 30-40° angle horizontal to the skin to penetrate the peritoneum. Insert the needle approximately 5mm past the bevel to ensure the microchip is released into the peritoneal cavity when injected.
9. Slowly squeeze the handle of the injector while maintaining a fixed position to release the microchip in the peritoneal space.
10. Withdraw the needle straight out and discard directly in the sharps container by squeezing the ejector lever.
11. If needed, the injection entry point may also be closed with tissue glue or a medical grade cyanoacrylate adhesive (i.e., Surgi-Lock).
12. Place the animal back into its cage and allow to recover from the anesthesia.
13. Scan the microchip with a compatible reader to confirm and record the identification code and temperature.

