

MICRODIALYSIS GUIDE CANNULA IMPLANTATION

ORDER CODE: UNI-BMICRO

SPECIES: Rat

DIET SUPPLEMENT: None required

This procedure involves microdialysis guide cannula implantation. The implanted animals are shipped to customers for microdialysis study.

Surgical Procedure

The animal is prepared for surgery using pre-operative and anesthetic procedures as described in Charles River Laboratories *Reference Paper* Vol. 13 #1, 2005. A sagittal skin incision is made on the scalp to expose the skull. The connective tissue on the exposed skull is removed with a sterile cotton tip applicator. The bregma and lambda bone structures are identified. Together, the guide and dummy cannulas are pointed directly over the bregma, and the zero coordinates are recorded. Then, by repositioning the cannula to the desired coordinates, the tip of the cannula can be placed in the target area. A hole is drilled into the skull to receive the cannula, along with four additional holes for anchoring screw placement. The screws are mounted onto the skull through the four holes. The guide cannula is lowered through the hole into the target area to a pre-determined depth. A layer of cranio-plastic powder is applied around the cannula to affix the cannula and cover the exposed portion of the skull. A small amount of cranio-plastic liquid is applied to the powder.

**Note: Customer should remove dummy cannula and insert microdialysis probe for microdialysis study.*

IACUC

Charles River's Institutional Animal Care and Use Committee (IACUC) governs the entire surgical process, including any post-operative holding in CRL facilities prior to shipment. The receiving institution's Animal Care and Use Committee, investigators, and animal care staff are responsible for the well-being of the animal subsequent to its arrival. Justification for use of surgically-modified animals, review of experimental protocols, authorization to order animals that are surgically modified from Charles River, and all aspects concerning the use of surgically-modified animals after they arrive at the institution are the responsibility of the receiving institution's IACUC.

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