charles river

SURGICAL SERVICES - NORTH AMERICA

Parkinson's Model (6-OHDA lesion model)

Surgery Code: PARKINSON

Brain lesion using 6-hydroxydopamine (6-OHDA) model is of benefit to preclinical or research studies and drug testing of Parkinson disease.

Animal Models

Typical selections are listed below; however, choices for strain, age and weight may be limited due to model anatomy and/or physiological conditions.

- Rats: male/female, any strain, weight ≥ 225 g

Procedure Details

- **Perioperative care:** Please view our Pre- and Postoperative Care Sheet, which can be found at www.criver.com/opcare.
- **Perioperative challenge:** An apomorphine hydrochloride rotation is performed 5-7 days after surgery.
  - Dosage: 0.2 mg/kg given as a subcutaneous injection
  - Challenge criteria: 5-minute rotation count, with a minimum of five rotations per minute determining success
- **Housing:** Though animals can be group housed, it may be necessary to separate some animals if they become combative with others due to the progression of the model.
- **Diet:** No special diet is required.
- **Postoperative holding period:** At a minimum, post-op animals are held 5 days, with the majority of animals shipping within 7 days of surgery.
- **Maintenance:** Incision wound clips should be removed 7-10 days after surgery.

Surgical Summary

The animal is placed in the stereotaxic apparatus and bregma and lambda are identified. An injecting cannula is then loaded onto the holder of the stereotaxic apparatus and placed over the specified target according to predetermined coordinates. Unilateral 6-hydroxydopamine (6-OHDA) lesions are made in the brain of substantia nigra (SN) or medial forebrain bundle (MFB), or custom region per request. By default, Charles River uses a single 12 μg injection of 6-OHDA per lesion in the substantia nigra. Custom lesion(s) and dose range (4-25 μg) of 6-OHDA can be performed on special request.

IACUC

The Charles River Institutional Animal Care and Use Committee (IACUC) governs the entire surgical process, including all anesthesia, analgesia, animal preparation and any postoperative holding in Charles River facilities prior to shipment. Review of experimental protocols, authorization to order animals that are surgically modified from Charles River, and all aspects concerning the use of the animals after they arrive at the institution are the responsibility of the receiving institution's IACUC.

Contact Us

For more information, visit www.criver.com/surgery. For specific surgery-related questions, please contact our technical experts at 1.877.CRIVER.1 (1.877.274.8371) or askcharlesriver@crl.com. To place an order or get a quote, contact our Customer Service Department at 1.800.LABRATS (1.800.522.7287).

EVERY STEP OF THE WAY