



Intracisternal Cannula Handling Instructions

All procedures must be performed using aseptic technique.

Materials

1. Sterile tuberculin syringes
2. Sterile blunted 23-gauge needles/adaptors
3. Forceps or hemostats
4. Sample vial (e.g., sterile serum separator tube)
5. Artificial cerebrospinal fluid (CSF)
6. Sterile 70% alcohol wipe/gauze

CSF Sampling Procedure

1. This process is best performed with two people: one person gently restraining the animal while the second person performs the procedure.
2. The average volume of CSF that can be collected in rats is 50-110 μL per sampling. Sampling intervals of 6-8 hours is suggested to allow for production of CSF and animal health.
3. Carefully clean the exposed plug and tubing of the Rodent Cisterna Magna Cannula (RCMC) with a sterile 70% alcohol wipe/gauze.
4. Remove the plug with the forceps or hemostats and place the plug on a sterile surface. Collect the CSF with the sample vial if the CSF flows immediately.
NOTE: CSF flow is often affected by animal position. Animals should not be stretched and slight compression along the length of the spine may help with CSF flow.
5. In rare occasions, if CSF does not flow immediately, connect the tubing to sterile blunted 23-gauge needle/adaptor with sterile tuberculin syringe. Gently draw CSF out.
CAUTION: Avoid applying excessive force to the tubing, as this may result in damage to the cannula and injury to the animal.

6. Lock the tubing and RCMC with 16 μL artificial CSF after collection and replace the plug.

Dosing Procedure

(Dependent upon toxicity of compounds)

1. This process is best performed by two people: one person gently restraining the animal while the second person performs the procedure.
2. Carefully clean the exposed plug and tubing with a sterile 70% alcohol wipe/gauze.
3. Clamp the end of exposed tubing with the forceps or hemostats to avoid CSF flowing out; remove the plug and place it on a sterile surface.
4. Connect the tubing to sterile blunted 23-gauge needle/adaptor with sterile tuberculin syringe.
5. Release the forceps or hemostats and gently perform dosing.
6. Lock the tubing and RCMC with 16 μL artificial CSF after dosing and replace the plug.

Miscellaneous

Animals must be housed individually in order to avoid damaging the exposed tubing. Regular cannula maintenance, once every 5-7 days, using the sampling or dosing procedure is recommended.

Contact Us

For specific surgery-related questions, please contact our technical experts at 1.877.CRIVER.1 (1.877.274.8371) or askcharlesriver@crl.com.