

Infectious BSL2/BSL2+ sorting on Fusion: Safety Precautions (e.g. LCMV)

Download a copy of this instrument Help File: salk.edu/fccfaccess > Help Files

This document details basic safety precautions for sorts involving infectious as well as late (virus cleared) time-point samples. Note that only up to BSL-2 level samples can be sorted in the core.

Before planning/booking a sort, please check with FCCF as we will need to notify any one working in the area due to the potential biosafety concerns. Wear PPE and ensure samples are properly contained (secured secondary container recommended) for travel between your lab and FCCF.

1. **Notify personnel working in the area** (put up signage on core entryways). Recommend to wear PPE including an N95 while sorting; protect your eyes from splash incidents (keep BSC glass between you and sample). Do not leave sort unattended in case a clog occurs.

2. **Check AMS and hood upon arrival:** AMS (aerosol management system; removes aerosols from sort chamber) is set to LO for normal operation and BSC hood fan is on (hood fan light should not be flashing, breeze should pull at a kimwipe slightly inwards if you hold one up near the BSC entrance).

Before reaching in to access the sort chamber or collection tube area:

-If clog occurs: **Make sure stream shut off (if not, manually stop it) then use AMS at HI for 10min** before reaching in to clean up/retrieve clogged nozzle. Set back to LO once you get started sorting again.

-If no clog, but want to open biohaz sliding door to retrieve collection tubes: ***Stop running sample* (press the Acquisition button to pause it) and use AMS on HI for 2min** before opening the biohaz door. Set to LO when ready to resume sorting.

3. **Minimize aerosols:** Open samples within the BSC hood and minimize aerosols (gently invert sample rather than vigorously vortex). Keep BSC glass between your face (protect your eyes) and the tubes when handling.

4. **Decontaminate sort chamber and collection tube, clean up of work surfaces and spills:** Besides ensuring user safety, note that thorough clean up of the sample line, nozzle, sort chamber and collection area is critical after use to prevent other sorts from being contaminated.

-Treat work surfaces as potentially contaminated and change gloves regularly (eg after the bleach step) while cleaning down surfaces.

-Run AMS on HI before accessing sort chamber/collection tubes!

-For clog or general post use clean up, run AMS on HI (5min) before proceeding to clean surfaces down: **10% bleach (toss gloves after) > follow with water > sterilize with 70% ethanol**

-Clean the Fusion sample line following the usual procedure (i.e. by running 10% bleach).