

ELISA Safety

This SOP applies to ELISA procedures involving biohazardous materials in UMass Amherst facilities. ELISA generates splashes, sprays and aerosols during pipetting and wash steps, potentially exposing personnel and the environment to infectious droplets. To contain splashes, sprays and aerosols, ELISA procedures are conducted inside aerosol containment devices (e.g., biosafety cabinet or chemical fume hood).

Procedure:

1. Conduct all manual ELISA procedures in a BSC or other aerosol containment device
2. Place absorbent material under liquid waste container to catch any splashes and sprays
3. Use aerosol barrier pipette tips for any pipetting steps
4. Dispose of waste following waste handling SOPs for solids and liquids

Cautions & Considerations

- If an automated ELISA system is used, ensure system is aerosol-tight
- Do not open containers outside of the aerosol containment device
- Document regular disinfection of work surfaces and equipment in a maintenance log
- Disinfect equipment before repair or maintenance activities, and document maintenance in the log

Resources

- [Biosafety Manual](#)
- [BMBL 5th Edition](#)