



## Clinical Pathology Sample Collection Guidelines

3527 Animal Research Facility  
 1150 W. Medical Center Drive  
 Ann Arbor, MI 48109-0614  
 Clinical Pathology Lab: (734) 936-3803  
 Email: [ulam-ivac@umich.edu](mailto:ulam-ivac@umich.edu)

North Campus Research Complex  
 2800 Plymouth Road B36/G154  
 Ann Arbor, MI 48109  
 Clinical Pathology Lab: (734) 936-3395

### GENERAL INFORMATION:

- For technique training, contact the ULAM Training Core at [ulam-trainingcore@umich.edu](mailto:ulam-trainingcore@umich.edu) or (734) 763-8039
- For assistance with sample collection, contact ULAM Technical Services at [ulam-techservices@umich.edu](mailto:ulam-techservices@umich.edu)
- For questions about specific chemistry volumes, contact us at (734) 936-3395 or (734) 936-3803

### MINIMUM VOLUMES:

- **CBC (Complete Blood Count):**
  - For small species (rodents), draw **minimum** 50µl whole blood in lavender (EDTA) Microvette 100 tube (If using 250µL tubes draw minimum 125µl)
  - For larger species draw up to the listed draw volume: note that we do not accept tubes >4 ml
  - Other anticoagulants may interfere with results
  - Immediately and thoroughly mix sample after drawing by inverting 8-10 times
  - Keep at room temperature, **NOT** on ice; refrigerate at 4°C if must be stored overnight
  - CBC samples cannot be analyzed after 24 hours
- **Chemistries:**
  - Chemistries are performed on serum or heparinized plasma
  - Blood may be collected in the serum separator microtainer (yellow), plasma tubes (green), or no-additive serum tubes (red top). Serum volume recovery is best in serum separator tubes (yellow)
  - Normally, half the volume of whole blood is serum (i.e. 100 µl whole blood gives 50 µl serum)
  - Allow blood to clot for ~30 minutes, then centrifuge sample for 8-10 minutes at 1000-3000 g
  - If samples will not be run for > 24 hours or more, spin and separate serum, then freeze serum at -20°C

### SUBMISSION NOTES:

- A current account number (short code) must always be given
- Syringes with needles, glass sample tubes, or tubes with volumes >4 ml will NOT be accepted
- If running chemistries the only anticoagulant that is acceptable for plasma is lithium heparin (no citrate!)
- Fecal specimens must be in proper containers (no gloves)
- Urine samples should be clean catch in a sterile container
- Microbiology samples should be submitted promptly after collection

### SUPPLIES:

Though the ADL does not provide supplies, we do have a list of sources. Please ensure that you purchase plastic (not glass) tubes of appropriate volume for the species – note we cannot accommodate tube volumes >4 ml.

| Item (draw volume)                        | Usage                 | Vendor | Catalog #  | Mfr      | Mfr #             |
|---|-----------------------|--------|------------|----------|-------------------|
| Serum Separator Microtainer               | Chemistries, Serology | Fisher | 02-675-185 | BD       | 365967            |
| EDTA Microvette 100uL                     | CBC                   | Fisher | NC9299309  | Sarstedt | 20.1278           |
| EDTA Microtainer 250uL                    | CBC                   | Fisher | 02-669-33  | BD       | 365974            |
| Vacutainer Serum separator tube 3 ml      | Chemistries, Serology | Fisher | 02-657-27  | BD       | 366668            |
| Vacutainer Serum separator tube 4 ml      |                       |        | 02-685-111 |          | 367812            |
| Vacutainer K <sub>2</sub> -EDTA tube 3 ml | CBC                   | Fisher | 02-683-99B | BD       | 367856            |
| Vacutainer K <sub>2</sub> -EDTA tube 4 ml |                       |        | 02-689-4   |          | 367844            |
| Culturette collection system              | Microbiology swabs    | Fisher | B432009x   | BD       | Varies with media |