



Mpox Laboratory Testing Guidance for Animal Clinical Specimens

Testing Criteria

- Animals that meet the suspect case definition for mpox disease (clinically compatible illness and epi linkage) have the following:
 - Epi linkage: close contact (e.g. petting, cuddling, kissing, licking, sharing food and living spaces) with a probable or confirmed case of human or animal mpox within 21 days of symptom onset.
 - Clinical signs of Monkeypox virus infection in animals include, but are not limited to: rash or poxvirus-like lesions; conjunctivitis, coryza and/or nasal secretions; cough; anorexia; lethargy; bloat; fever; labored breathing.
 - Clinically compatible illness is either rash or two or more other clinical signs listed above
- Prior to shipping, contact your Regional Zoonosis Control office (<https://www.dshs.texas.gov/IDCU/health/zoonosis/Contact-Us.aspx>) to ensure patient meets criteria and to coordinate testing. Necessary information to assess testing approval includes:
 - Specimen collection date, specimen material and type (including whether transport media was used), original submitter specimen ID, animal signs and symptoms, and contact information for the submitter and ideally the animal's owner as well.
 - To accurately determine if an epi linkage exists for the animal, name and other personal information for human contacts may be necessary. Public health staff will assist in interviewing owners or other human contact to the animal as needed.
 - Regional Zoonosis Control staff will coordinate with DSHS to obtain approval from CDC for testing.

Test Availability

- Poxvirus molecular detection
 - Animal testing is currently only available through the Centers for Disease Control and Prevention (CDC) laboratory (<https://www.cdc.gov/laboratory/specimen-submission/detail.html?CDCTestCode=CDC-10515>)
- Anti-orthopox IgG antibody by ELISA is available at CDC for suspect animal cases but requires consultation with public health prior to submission (<https://www.cdc.gov/laboratory/specimen-submission/detail.html?CDCTestCode=CDC-10516>)



Specimen Types Accepted

- Skin lesion material for animals with active lesions or rash. Dry swabs of lesion material, swabs of lesion material in viral transport media (VTM), or lesion crusts are also accepted.
- For animals without lesions: oral, nasal or anal swabs.
- Whole blood in a tube with EDTA.
- Serum separated from whole blood (preferably in a serum separator tube) within two hours after blood collection and then transferred to a sterile tube for submission.
- For small, deceased rodents: whole frozen bodies can be accepted for testing with prior approval.
- For larger deceased animals: consult with DSHS on acceptable internal tissue samples. Must be approved by DSHS prior to shipment

Specimen Collection, Handling, and Storage

Use appropriate personal protective equipment (PPE) and follow standard precautions during collection.

- PPE should include [a disposable gown, gloves, eye protection \(safety glasses, goggles, or face shield\), and](#) a NIOSH-approved particulate respirator equipped with N95 filters or higher.
- Practice hand hygiene before and after sample collection.
- Employers must comply with OSHA's standards on PPE ([29 CFR 1910.132](#)), Respiratory Protection ([29 CFR 1910.134](#)), and other requirements, including those established by state plans, whenever such requirements apply.

Vigorously swab or brush lesion with two separate sterile synthetic swabs (including but not limited to polyester, nylon, or Dacron) with a plastic, wood, or thin aluminum shaft. **Do not use cotton swabs.** Collect multiple specimens as follows:

- Break off end of swab applicator into a 2-mL screw-capped tube with O-ring or place each entire swab in a separate sterile container that has a gasket seal.
- Two swabs from each lesion should be collected, preferably from different locations on the body or from lesions which differ in appearance. One swab per lesion can suffice if needed.
- For animals without lesions, one swab from oral, nasal, and/or anal cavity is fine.
- Swabs and other specimens should be placed in different containers. Use only one storage container per specimen. For swabs from the same lesion, label the tubes as "sample XX" and "sample XX duplicate". Lesion crusts should be sent in a dry tube.
- Specimens should be stored within an hour of collection, preferably frozen (-20°C or lower, up to 60 days) or refrigerated (2-8°C up to 7 days).



For serology: serum must be separated in blood collection tubes containing a clot activator and/or gel. Serum samples should be stored either frozen (-20°C or lower, up to 60 days) or refrigerated (2-8°C up to 7 days).

Specimen Shipping

Submit specimens directly to CDC:

- Email your regional Zoonosis Control Branch to complete necessary lab paperwork and send package tracking information:
<https://www.dshs.state.tx.us/IDCU/health/zoonosis/Contact-Us.aspx>
- Specimens and material for the current outbreak of Clade II (formerly the West African clade) of mpox virus can be shipped as UN 3373 Biological Substance, Category B.
- Do not ship on Fridays or before government holidays. Ship specimens Monday-Thursday by overnight delivery.
- Specimens should be placed in a biohazard bag and stored at 4°C or -20°C as indicated below:
 - Specimens that are shipped the same day of collection and will arrive at the lab within 24 hours of collection can be stored at 4°C and should be shipped with cold packs.
 - Specimens that will be stored and arrive at the lab more than 24 hours after collection should be stored at -20°C and shipped on dry ice.
 - Ensure that specimens are shipped with enough ice packs or dry ice so that they arrive cold or frozen.
- All specimens must be labeled with at least two patient specific identifiers; both a primary and a secondary identifier. The identifiers must appear on both the primary container and the associated submission form. Missing identifiers may delay lab results or lead to samples being unsatisfactory.
- Ship to the physical address:

US Centers for Disease Control
STAT LAB: ATTN POX (unit 47) One Health
1600 Clifton Rd NE
Mailstop G-12
Atlanta, GA 30333

Additional Information

Public health contact emails:

CDC: Poxvirus Inquiry Line
(404) 639-4129
poxvirus@cdc.gov

DSHS: EAIDUMonitoring@dshs.texas.gov
the.vet@dshs.texas.gov