

# Utah Department of Health and Human Services Utah Public Health Laboratory

## Rabies collection, packaging, and shipping instructions

### Description

This document provides general guidance for institutions and individuals who intend to submit samples for rabies testing to the Utah Department of Health and Human Services (DHHS) Utah Public Health Laboratory (UPHL). Field conditions, animal variability, and experience may require different strategies. DHHS epidemiology and UPHL virology subject matter experts should be consulted with questions or concerns.

Rabies is a lethal virus in humans. People who handle animals or tissues should be aware of the risks and consequences of rabies exposure. Safety and biosafety precautions, such as vaccination and personal protective equipment (PPE), are warranted for all specimens where rabies virus may be present.

This submission guidance is divided into 3 sections:

- [1. Rabies specimen submission instructions](#)
- [2. Rabies QUICK packaging guide](#)
- [3. Federal shipping regulations](#)

# Rabies specimen submission instructions

## General guidance

- For information about rabies testing in Utah, contact the DHHS zoonotic disease epidemiologist, 801-538-6191, or the epidemiologist on-call for rabies testing (888-374-8824) (<https://epi.health.utah.gov/rabies>)
- Shipping address:
  - Utah Public Health Laboratory
  - 4431 South 2700 West
  - Taylorsville, UT 84129-8600
- Utah Public Health Laboratory (UPHL) specimen receiving hours: Monday to Friday from 8 a.m. to 6 p.m. and Saturday from 8 a.m. to 4:30 p.m. Specimen receiving phone number: 801-965-2522.
  - Saturday deliveries are properly packaged **hand delivery only**, or upon special arrangement with the courier service and UPHL.
- The Utah Public Health Laboratory (UPHL) provides free testing only for submissions meeting the recommendations listed in the 2016 Compendium of Animal Rabies Prevention and Control (<http://www.nasphv.org/Documents/NASPHVRabiesCompendium.pdf>) and in those circumstances where a significant risk of infection can be identified.
  - If you suspect an animal has rabies and would like to test an animal that has **not** exposed a human or domesticated animal, call 801-538-6191 to discuss.
  - Any animals received that do not clearly meet the criteria found in the compendium or any animals submitted with incomplete paperwork may lead to a \$180 fee.
- All rabies submissions should be packaged and shipped by a trained professional. If you are a member of the public, please call your [local health department](#) to coordinate rabies testing.
- Bats should be submitted intact, dead or alive. Veterinarians can euthanize live bats (<https://www.cdc.gov/rabies/bats/contact/capture.html>).
- Bats are the only animal that may be submitted alive. The laboratory must be alerted and the **container clearly labeled if a live bat is submitted**.
- All other animals (>12 inches) should be decapitated and only the head submitted.
- **Birds, reptiles, and most rodents do not harbor rabies virus and should not be sent for testing.**
  - If you have questions about an exposure to one of these animals, contact your [local health department](#).

## Sample collection (animal heads and whole bats)

- Refrigerate specimen(s) as soon as possible after the death of the animal(s). **Do not freeze the specimen or animal** (freezing may delay results).
  - If an animal cannot be kept refrigerated and shipped within 24 hours, for example a holiday weekend, then freezing the specimen may be acceptable. Please call the rabies virology line (801-965-2400) for guidance about specimen storage if shipment may be delayed.
- Submit 1 of the following, as appropriate:
  - Head of animal for all domestic animals (dogs, cats, etc.)
  - Intact brain for all large animals (cattle or horses)
  - Whole animal if less than 12 inches long (exclusive of tail)
- **Do not:**
  - Fix the specimen in formalin or other preservative
  - Euthanize the animal by clubbing or shooting the animal in the head
- **Do not submit:**
  - Live animals, except for bats that cannot be safely euthanized by a professional
    - The container **must be labeled properly** to indicate the presence of a live bat.
  - Animals raised or confined to cages (hamsters, gerbils, mice, rats, rabbits, etc.)
  - Wild or domestic birds
  - Reptiles
  - Animals with a low likelihood of human rabies risk such as rodents (squirrels, chipmunks, mice, rats, etc.) and lagomorphs (rabbits and hares), **unless** you have received prior approval by the DHHS zoonotic epidemiologist (801-538-6191).

## Specimen submission

### Submission form

A [Rabies Testing Request form](#) must be completed for each specimen submitted.

- Verify all information is correct before you submit the form.
- The circumstances of the exposure (bite, scratch, or direct skin contact with saliva or blood from wild animal or probable exposure to rabid animal) should be documented in the **Exposure Information** section and **Symptoms** section of the Request form. Both animal-to-human and wild animal-to-domesticated animal exposures can be submitted.

- **It is extremely important to complete the test request form with as much information as possible.** A specimen **will not be accepted** if the form does not (at a minimum) contain the name and contact information for the person or pet exposed to the animal being tested for rabies. Incomplete test request forms will result in a delay of results.

## Shipping

[Federal regulations for shipping rabies specimens apply and are listed on page 10.](#)

- People who package specimens for shipping are legally required to take a class in shipment of infectious substances.
  - The class is available commercially or through the Utah Public Health Laboratory Training Program by calling 801-560-6816.
  - Training and guidance for packaging and shipping is available through CDC and ARUP (<https://www.aruplab.com/training/handling-shipping>, <https://www.cdc.gov/labtraining/training-courses/packaging-shipping-division-6-2-materials.html>).
- Refrigerate all specimens before and during shipment.
- Frozen cold packs should be used to provide refrigeration during transport. **Gel ice packs only—do not use dry ice.**
- Ship specimens within 24 hours of euthanasia whenever possible. If the sample cannot be shipped within 24 hours, keep the sample refrigerated and ship as soon as possible.
  - If an animal cannot be kept refrigerated and shipped within 24 hours, for example a holiday weekend, then freezing the specimen may be acceptable. Please call the rabies virology line (801-965-2400) for guidance about specimen storage if shipment may be delayed.
- **Do not ship specimens to arrive on a weekend or a holiday** unless the courier can guarantee delivery. The Utah Public Health Laboratory is closed on Sundays and all state and federal holidays.
- Preferred shipping methods include (NOTE: Shipping fees are the responsibility of the sender):
  - Commercial carriers (FedEx, UPS, or local courier services)
  - Package Runner, LLC. Courier
    - Main: 801-821-9044
    - Dispatcher: 435-820-4748
    - Service: Vernal, Roosevelt, Blanding, Moab, Logan, and Tremonton
  - Intermountain Courier, IHC Courier
    - Dispatcher: 801-442-4090
    - Service: Salt Lake City, Provo, Ogden, St. George, and Logan

- Hand-delivery to Utah Public Health Laboratory:
  - Utah Public Health Laboratory  
4431 South 2700 West  
Taylorsville, UT 84129-8600
  - During regular working hours (Monday to Friday from 8 a.m. to 6 p.m. and Saturday from 8 a.m. to 4:30 p.m.), deliver the specimen to the Clinical Specimen Receiving area located on the northwest side of the building (west submission window)
    - Saturday deliveries are properly packaged hand delivery only, or upon special arrangement with the courier service and UPHL.

### **Packaging specimens (see the enclosed quick guide)**

- These packaging instructions should be followed for **all** specimens and all methods of specimen transport.
- Packing supplies are available through Utah Public Health Laboratory, and can be requested using the [supply ordering form](#) or by calling 801-965-2400.
- Place specimen in a clear plastic bag.
  - When submitting the head of an animal, thoroughly drain excess blood and fluids before placing it in the bag.
  - Place an absorbent material (newspaper or absorbent padding) in the bag with the specimen to prevent fluid leakage.
  - If the head has sharp protuberances (teeth, shattered bone, or quills), wrap the head in layers of newspaper or absorbent padding before you put it in the bag.
  - If submitting multiple specimens, use separate bags and label the outside of each bag with an identification that matches the information on the [Rabies Testing Request form](#).
  - **Submit a separate test request form for each specimen.**
  - It is extremely important to complete the test request form with as much information as possible. **A specimen will not be accepted if the form does not (at a minimum) contain the name and contact information for the person or pet who was exposed to the animal being tested for rabies. Incomplete test request forms will result in a delay of results.**
- Seal the bag securely with a rubber band or tape to prevent blood or fluids from leaking during transport.
- Place the clear bag(s) containing the specimen(s) inside an orange/red biohazard bag and seal the bag using a rubber band or tape. Double bag the specimen(s) in a second clear bag if a biohazard bag is not available.

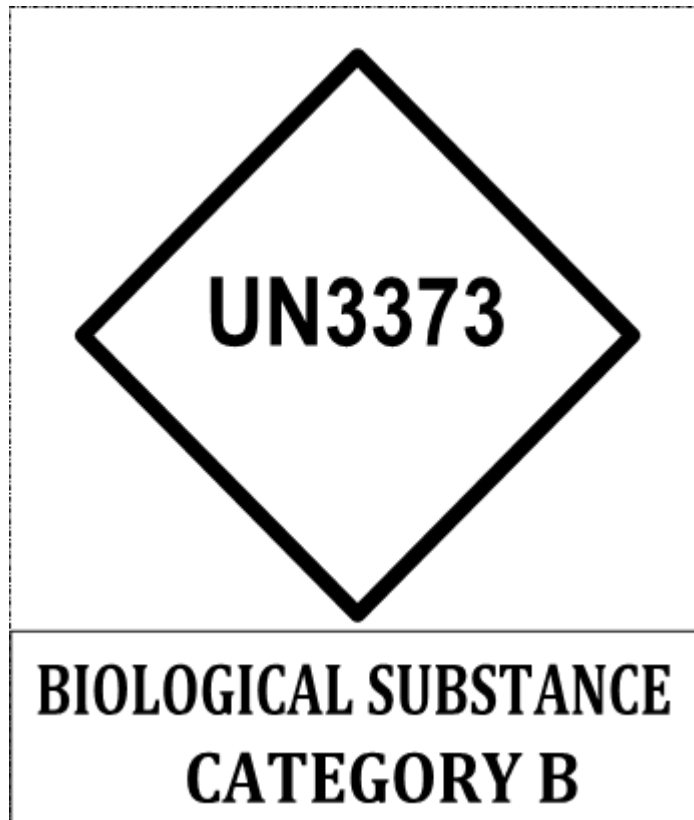
- Place the bag(s) in an inner Styrofoam box.
- Place enough frozen **gel packs** in the inner box to keep the specimen(s) cold for at least 48 hours. **Do not use dry ice!**
  - Use of wet ice is not recommended but if wet ice must be used, double-bag the ice and seal the bags securely to prevent leakage during shipment.
- Place the Styrofoam container into a labeled mailer.
- Complete a [Rabies Testing Request form](#) for each specimen submitted. Place the form(s) in a separate clear plastic ziplock bag and placed loose on top of the Styrofoam insert. It does not need to be taped down.
- Close the lid to the outer container so that a **Ship-to: UPHL** label is prominently displayed on the **exterior of the box**.
- Secure the lid of the box with packing tape.
- Place a diamond-shaped UN3373 (Biological Substance, Category B) label on the outside of the box. A printable example label is included below.
- Provide the name and phone number for a contact person who can be reached 24 hours a day, 7 days a week and who **knows about the shipment of the rabies specimen(s)**. Place the label on the outside of the outer box. The package is ready for transport.

### **Laboratory reports**

- Specimens received by 11 a.m. Monday through Friday (except when that day is a state or federal holiday) are usually reported by telephone, fax, email, and/or U.S. mail to the provider submitting the [Rabies Testing Request form](#) by 5 p.m. on the same day.
- Specimens received after 11 a.m. are reported the next working day.

### **Laboratory contact**

For questions about rabies testing, call the Utah Public Health Laboratory at 801-965-2400 and ask to speak to, or leave a message for, the rabies virologist. A staff person is available Monday through Friday from 8 a.m. to 5 p.m.



Print and attach to shipping container

## Rabies quick packaging guide—for all methods of transport

1. Drain the specimen of all fluids then place it in a clear plastic bag. If necessary, wrap the specimen in newspaper or an absorbent pad to prevent sharp edges from puncturing the bag. If submitting multiple specimens, place them in separate bags, and label each bag with an identifier that matches the Rabies Testing Request form. Submit a separate form for each specimen.
2. Place additional absorbent padding in the bag with the specimen then tightly seal the bag using a rubber band or tape. **The bag must be leak-proof—check that it is tightly sealed.**
3. Place the clear bag into a (orange/red) biohazard bag and seal this bag using a rubber band or tape. If you don't have a biohazard bag, put the clear bag with the specimen into another clear bag and seal it using a rubber band or tape.
4. Place bag(s) inside an inner Styrofoam box.
5. Place frozen gel pack(s) on top of the specimen bag. **Do not use dry ice.**
6. Close the inner Styrofoam box and place the Styrofoam lid on top.
7. Complete the [Rabies Testing Request form](#)(s) if you haven't already done so. Place the





form(s) in a clear ziplock bag, and then place on top of the Styrofoam lid. The ziplock bag should just be loose on the top of the lid; it doesn't need to be taped down. A separate form must be submitted for each specimen.



8. Place the Styrofoam box inside an outer cardboard box for mailing. Seal the lid of the outer box with packing tape.

9. Label the outer box with the address of the Utah Public Health Laboratory.

Utah Public Health Laboratory  
4431 South 2700 West  
Taylorsville, UT 84129-8600

The address must be clearly seen on the outside of the box.



10. Place the [UN3373](#), shipper address, and emergency contact labels on the outside of the outer box.
11. Write the name of an emergency contact person and a 24/7 phone number for this person on the emergency contact label.
12. Send it to the Utah Public Health Laboratory. Your facility will need to arrange transport and pay transport costs.

## Regulations for shipping rabies specimens

- Per federal regulations, rabies specimens must be shipped as a **UN 3373 Biological Substance, Category B** (49 CFR 173.199). These materials are regulated by DOT and IATA regulations.
- It is a federal requirement that the shipper of a Biological Substance, Category B be familiar with 49 CFR 173.199. These regulations are available at the following link: [https://www.govregs.com/regulations/title49\\_chapterI\\_part173\\_subpartE\\_section173.199](https://www.govregs.com/regulations/title49_chapterI_part173_subpartE_section173.199)
- Shipping containers and labels meeting federal regulations for shipping rabies specimens are available to local health departments and veterinarians at no charge upon request. Similar containers are acceptable provided they comply with the 49 CFR 173.199 instructions for Biological Substance, Category B.
- **The shipper is responsible for packaging specimens correctly and shipping them rapidly. Incorrectly labeled packages may be returned to the sender by the commercial courier.**
- People who package specimens for shipping are legally required to take a class in shipment of infectious substances. The class is available commercially or through the Utah Public Health Laboratory Training Program. Training and guidance for packaging and shipping is available through CDC and ARUP (<https://www.aruplab.com/training/handling-shipping>, <https://www.cdc.gov/labtraining/training-courses/packaging-shipping-division-6.2-materials.html>).