



Genetic Preservation Instructions Deceased Livestock

General Information

Time is of the essence in a post-mortem situation. If the animal/tissue has been kept under optimal conditions post mortem, cool (approximately 4°C), ***not frozen***, then the maximum length of time we can accept the biopsy samples is 5 days post mortem. Storage at higher temperatures will decrease the chance of successful preservation and should be avoided. Keep in mind that each day the animal has been deceased minimizes the chance of a successful preservation. Please be aware the best way to assure a successful preservation is to have your animal biopsied while it is alive. These instructions are to be used for obtaining tissue for genetic preservation from deceased animals. Tissue samples received will be used to establish cell cultures, and the resulting cells will be harvested and stored in liquid nitrogen

SHIPPING

DO NOT ship samples on Friday as our lab does not receive shipments on the weekends. If samples are from a deceased animal and need to be received in lab as soon as possible, contact Trans-Ova for alternate instructions (emergency contact 712-441-3193).

Items Required

Razor	Ziploc Bags or Sterile Blood Tubes
Sterilizing Agent (i.e. Ethanol, Rubbing Alcohol)	(without heparin) or Sterile Container
Sterile Gauze or Clean Cloth	Ice Packs or Ice in Ziploc Bag
Scalpel Blade or Sterile Knife	Styrofoam Box for Shipment
Tweezers	Newspaper or Bubble Wrap
Marker	Customer Contract (if not previously signed)

Items to Be Sent from Trans-Ova for hair Card DNA Collection

2 hair Cards in Ziploc Bag
hair Card Instructions
Return Envelope

Alternatively you can pulled tail hair including root bulbs with a tweezer and place it in a Ziploc bag – do not touch the root bulbs. Label the bag with the ID of the animal and the owner name.



Sample Types

Recommended tissue types for gene banking include: ear tissue, flank skin, muscle. We prefer to receive one to two samples at a minimum.

Labeling Instructions

1. Using a marker, clearly label one container or Ziploc bag for each sample with the following:
 - a. Sample type (ear, flank skin, muscle)
 - b. Collection date
 - c. Date of death
 - d. Animal ID (ear tag, brand, and/or tattoo)
 - e. Owner
2. Label one Ziploc bag for DNA analysis – the hair with the root bulbs.

Sample Collection Protocol

1. Thoroughly wash hands to avoid further contamination.
2. For skin and ear samples, shave the area where the biopsy will be taken.
3. For all samples, pour alcohol (sterilizing agent) on sterile gauze or a clean cloth.
4. Rub the surface of the biopsy area with the gauze or cloth to remove any dirt or contaminants.
5. Allow the area to air dry.
6. Sterilize knife or scalpel and tweezers with alcohol.
7. Cut two pieces of tissue approximately 1 inch square. Remove the tissue pieces using the tweezers, and place both in the appropriately labeled containers/Ziploc bags to be shipped to our lab.
8. Place the hair in the Ziploc bag labeled for DNA analysis.
9. Optional - Repeat for other tissue type(s).
10. Place samples in the refrigerator until ready to ship.

Instead of the above, you can use a Simple Alternative Sample Collection Protocol

1. Thoroughly wash hands to avoid further contamination of ear.
2. Cut off about 2/3 of the ear of the deceased animal with a clean knife or scalpel (You can clean knife/scalpel with rubbing alcohol or ethanol).
3. Put ear in a Ziploc bag and label Ziploc bag as stated above (*Labeling Instructions*).
4. Place in refrigerator until ready to ship. **DO NOT FREEZE!**

Shipment Procedure for Tissue Samples

1. Place the ice packs in the bottom of a Styrofoam box.
2. Wrap the samples in newspaper or bubble wrap, so they will not come in direct contact with the ice. The objective is to keep the samples cool but not to freeze them.
3. Place the samples on top of the ice packs.
4. Place any contracts in a Ziploc bag and include in the box.



5. Seal the box, and immediately send samples to Trans-Ova via FedEx PRIORITY OVERNIGHT. Take a photo of the shipping label and text it to 712-441-3193 so we can see the tracking number and know when it was shipped.
6. If you must ship on a Friday due to unexpected death, inform us at 712-441-3193 and make sure the shipping label is marked for Saturday delivery. If it is not, overnight priority will come in on Monday.
7. Address to ship to:
 - a. Trans Ova Genetics GAC
 - b. 3483 US 75 Ave
 - c. Hull, IA 51239
 - d. Attn: Shelby or Brenna

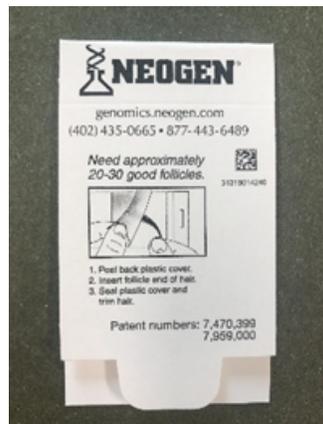
FTA Card Instructions if you Have a Hair Card on Hand

Hair Card (DNA Analysis)

After an animal is cloned from your animal's cells, DNA analysis will be performed to verify the identity of the animal. In order to store your animal's DNA for this purpose, DNA needs to be collected using a DNA hair card. You need to collect samples as soon as you can.

DNA Card Protocol (hair):

1. Pull 20-30 pieces of hair from the tail of the animal. Make sure the follicle bulbs are intact.
2. Peel back the plastic cover on the inside of the hair card.
3. Insert the follicle end of the hairs and seal the plastic cover.
4. Trim the hair



5. Date and label the back of the hair card with the animal's name.



6. The animal's owner and the person collecting the blood sample must sign and print their name on the card.

7. Enclose the hair card in the Ziploc bag, **one per bag**, and place them in the return shipment along with the biopsy samples

****This is required on all animals. This will later be used to verify DNA analysis on cloned animals. This MUST BE SIGNED BY THE OWNER OF THE ANIMAL and the person collecting samples.**

******Please complete TWO cards if possible.**

If you need assistance please call Diane Broek at 712-441-3193 cell, she will answer that phone 24/7. Alternatively you can call 1-800-999-3586 for Trans Ova Genetics and ask for Nicole Plendl.