

## Genetic Preservation Instructions For Equine - Nanocool

### General Information

This kit and the sampling techniques are designed to obtain the highest quality tissue samples possible for establishing cell cultures to be used for cloning, and hair samples for DNA verification purposes. Each kit is designed for obtaining samples from one animal. Biopsy samples should be taken by a veterinarian.

### Shipping

A return FedEx label is included. Do not ship samples on Friday unless alternative arrangements have been made as our lab does not receive shipments on the weekends. After the biopsy, call FedEx at 1-800-463-3339 to schedule a same day pickup or drop the box off at a FedEx Express location.

### EIA Testing

A Coggins Test, from 180 days before or after the biopsy, is required. Please include a copy of the current Coggins Test when you return the kit or email results to [pets@viagenpets.com](mailto:pets@viagenpets.com).

### Kit Contents

#### For Tissue Biopsy

- 1 Sterile 6 mm Biopsy Punch
- 4 Sample Vials with Sterile Media
- 4 Parafilm® Sealing Strips
- NanoCool™ Cooling Unit
- Return FedEx Label

#### For Hair Sample

- Horse DNA Submission Form
- Envelope addressed to Veterinary Genetics Laboratory

**Great news! You don't have to unpack your kit. Please leave the kit at room temperature until the biopsy.**



**Use this QR code to watch  
how to pack your kit**



**Questions?** Call us M-F 8am – 5pm CST at 888-876-6104 or after hours call or text 512-413-5742.

## STEP 1 - TISSUE SAMPLE COLLECTION

### Animal Preparation

Utilize appropriate anesthesia and/or sedation as required. Local anesthetic, sedation, or general anesthesia is permissible. NOTE: Please avoid the use of Lidocaine when possible as it has been shown to be harmful to cells and may compromise the sample. Bupivacaine or Ropivacaine are acceptable alternatives to Lidocaine.

### Biopsy Site Preparation

Biopsy sites can include skin from the Mane, Chest and/or Tail. The biopsy areas must be shaved and cleansed with a series of chlorhexidine and alcohol scrubs.

### Biopsy Procedure

1. Take 3 to 4 skin samples using the 6 mm biopsy punch provided, with sterile technique. Rotate the biopsy punch on the surface of the skin until it cuts through all the layers including the epidermis, dermis, and the most superficial parts of the subcutis.  
**\*\* If the horse is at end of life, is euthanized or is deceased, using a sterile scalpel collect a total of Four 2.0 cm x 2.0 cm, full thickness skin samples, including at least 1 sample from the ear pinna.**
2. Place each biopsy in a separate vial. Close and seal each vial with the Parafilm Sealing Strip.
3. Close the biopsy sites using appropriate suture materials.
4. Place the sample vials in the refrigerator until shipping. Ship samples as soon as possible after the biopsy. Biopsy samples must be received by ViaGen Pets & Equine within 5 days of the biopsy date.
5. Complete the Biopsy Information Form and include in sample shipment.

### Shipment Procedure for Biopsy Samples

- Open the kit, removing the NanoCool™ Cooling unit. Place the unit foil side down, on a hard, flat surface. The white activator button should be pointing upward.
- Place the sample vials in the inserts once ready to ship.
- Activate the Cooling unit by pressing straight down on the activator button with your thumb. The NanoCool™ logo should turn blue within 30 seconds to 3 minutes of pressing the activator button.
- Once activated, return the Cooling unit to its original position in the kit. Ensure it is a snug fit.
- Place the biopsy form on top of the Cooling unit and then close the kit, taping the lid shut.
- Apply the return FedEx label and call FedEx at 1-800-463-3339 to schedule a same day pickup or drop the box off at a FedEx Express location.

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## STEP 2 – HAIR SAMPLE COLLECTION

The hair sample is a second source of verifying DNA analysis on cloned animals. This allows for an extensive confirmation.

The hair sample will immediately be analyzed by the UC Davis Veterinary Genetic Laboratory and used for later verification of cloned animals. Please follow the instructions below.

1. Please do not write on the DNA submission form. The owner information is intentionally blank on the form to protect your privacy, as the hair sample is being tested by a third-party lab.
2. Thoroughly wash and dry your hands.
3. Pull (DO NOT CUT) 20 - 30 tail or mane hairs by wrapping hairs around forefinger. For foals, use tail hairs only. Grasp hair close to the animal to ensure roots are included. Pull straight toward your body. Visually check that roots are attached to hair. DO NOT TOUCH ROOT BULBS.
4. Place sample in the shaded box on the Horse DNA Submission Form, with roots to the left. Tape in place with tape over the hair shaft on the right.
5. Fold submission form backwards so that barcode and identification are on the outside and hair is covered. See fold lines on the submission form for details. Do not seal the submission form with tape or staple shut.
6. Place the hair, along with the Horse DNA Submission Form, in the provided envelope addressed to Veterinary Genetics Laboratory and place in the USPS mail. You do not need to include a payment. You do not need to add owner information to the DNA Submission Form.

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