GeneSTAR®

SAMPLE COLLECTION GUIDE

You have a choice in the type of sample you collect. Most common is hair roots because they are gathered quickly and easily. The bulb—known as the root—on each hair contains a significant amount of DNA. For calves under eight months, deceased animals and sires, a blood card or semen sample is required.

How to collect a high-quality hair root sample.

Gathering hair root samples is easy, but collecting good ones is crucial. To improve accuracy of test results, please follow these simple steps. Neglecting these steps may affect the accuracy of results. The five steps are:

1. Verify the animal's tag number and write this number on the hair sample collector in the space provided. This ID will be used for reporting results so it's important to double-check for accuracy.

2. Always wash your hands or use clean gloves. Then, while holding the end of the tail switch, pull a pencil-thickness tuft of hair (at least 20 – 25 hairs from adult animals and 30 hairs from young animals eight mos. – 2 yrs.) from the switch, making sure hair roots are attached. Bulbs are under the skin and easily come out of the tail when pulled correctly. Pull the hair "up and away" from the way it lays to get as many roots as possible. Always collect samples from dry hairs and make sure the root bulbs are not contaminated with feces. If you are pulling hair with pliers, wipe the pliers clean between animals.

3. Open the hair sample collector completely. Place the hair on the back of the printed flap of the collector as shown, with roots close to the joined end. Peel off the backing paper, starting from the joined end, to expose the sticky backing of the other flap.

4. Press the sticky plastic side down on top of the hair. Make sure the edges of the plastic are sealed around the collector.

5. Trim the excess hair to the edges of the sample collector. Place the collectors in bundles of 10 – 15 in a resealable plastic storage bag. Complete the Sample Information Sheet with animal information and collector barcode number.

Step 1

Step 2

Step 3

Step 4

Step 5

GeneSTAR®

BLOOD AND SEMEN SAMPLE COLLECTION

Tips for collecting blood samples using FTA cards.

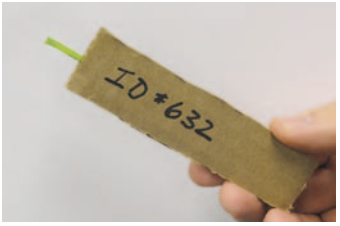
Allow blood samples to dry completely before sending them, but do not dry them in direct sunlight. When collecting blood, use new needles, syringes or pin prick devices for each animal.

When submitting samples for DNA testing, it is critical to eliminate cross-contamination. Rinsing needles is not enough to eliminate any possible DNA residue. New needles, syringes and pin prick devices must be used for each animal to ensure sample integrity.

1. Mark the front of the FTA® Card with the Animal ID.
2. Note the Animal ID on the FTA card on the sample information form, as well as other animal information, so that each sample can be correctly matched with each animal. Barcodes will be assigned to the sample when it arrives.
3. Open the FTA card and bend the top flap up so that the sample placed on the card dries in an open position.
4. Place drops of blood on the FTA card.
5. Saturate the card with enough blood to fill the circle outlined on the card, but not so much that the card is soggy.
6. Set the FTA card aside to dry overnight with top flap open. Make sure that FTA cards do not touch—this is a possible source of DNA cross-contamination. Also, do not let FTA cards dry in direct sunlight. The sun's UV radiation destroys DNA.
7. Once dry, rubber band FTA cards together in batches of 10 – 15 and place several batches together into a resealable plastic storage bag.
8. Ship FTA cards and other samples to Pfizer Animal Genetics.

Tips for sending semen samples.

Thawed semen samples may be sent. Here are some suggestions for packaging:



- Taped to or inserted into the edges of rigid cardboard.
- Inserted into an inexpensive writing pen with the ink tube removed.

What to send in special situations.

The hair follicles on calves are not thick enough to provide good quality DNA. For calves zero to eight months old, send blood cards (FTA) or whole blood in tubes (refrigerated). For deceased animals, send semen if available from storage. Otherwise send frozen lean tissue samples from the interior of the animal that do not show evidence of decay. Use either dry ice or blue-gel ice packs when shipping. For sires send straws (or ampules) of semen.

When can you expect GeneSTAR results?

Tests are completed each Wednesday and most results arrive in two to three weeks. If deadlines must be met, please allow enough time to get results.

When can you expect results for SireTRACE testing?

Typically, most test results arrive in three to four weeks. SireTRACE® testing, including parentage verification and fingerprinting, is completed on a two-week schedule with runs beginning every Monday and results sent after 10 business days. Make sure to include a completed copy of the parentage or fingerprint form to expedite the process.

Getting your data to you in time is important to us!

We suggest use of a courier such as FedEx, DHL or UPS to help ensure timely arrival of samples.

Send samples and all associated paperwork to:
Pfizer Animal Genetics
333 Portage Road
Kalamazoo, MI 49007-4931

1.877.BEEF DNA (1.877.233.3362)
www.pfizeranimalgenetics.com

Contact Pfizer Animal Genetics for international shipments.
An import permit is required and certain conditions apply.

Pfizer Animal Health
Animal Genetics

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