





# Test Descriptions

**RN (Napole Gene):** This pork quality gene is found predominately in the Hampshire breed. This test will determine if an animal is 1) free, or 2) a carrier or 3) has two copies of the gene. Hampshire breeders can use this test to develop lines free of the RN gene.

This test fee is \$30 per sample.

**Seek-Gain-Total Gain:** This is a group of porcine performance trait DNA marker tests utilizing information from eight unique genes that impact: Litter Size • Feed Intake/conversion • Weight Gain • Lean Growth • Fat Content • Meat Quality. Gene Markers Tested: MC4R, HMGA, CCKAR, PRKAG3, CAST 249, CAST 638, ER, EPOR.

This test fee is \$35 per sample.

**Seek Gain-Litter Size:** This is a group of porcine performance trait DNA marker tests utilizing information from two unique genes that impact litter size: Reproduction Rates • Uterine Capacity

**Gene Markers Tested:** ER, EPOR.

This test fee is \$25 per sample.

**Seek-Gain: Animal Growth & Meat Quality:** This is a group of porcine performance trait DNA marker tests utilizing information from six unique genes that impact animal growth: • Feed intake/Conversion • Lean Growth • Meat Quality • Weight Gain • Fat Content. Gene Markers Tested: MC4R, HMGA, CCKAR, PRKAG3, CAST 249, CAST 638.

This test fee is \$25 per sample.

**Seek-Gain: Animal Growth:** This is a group of porcine performance trait DNA marker tests utilizing information from three unique genes that impact animal growth: • Feed Intake/Conversion • Lean Growth • Weight Gain • Fat Content.

**Gene Markers Tested:** MC4R, HMGA, CCKAR.

This test fee is \$16 per sample.

**Seek-Gain: Meat Quality:** This is a group of porcine trait DNA marker tests utilizing information from four unique genes that impact meat quality: • Tenderness • Juiciness • Glycogen level, pH, & Color Gene Markers Tested: PRKAG3, CAST 249, CAST 638.

This test fee is \$16 per sample.

**Shipping Instructions:** After the card is dry, cover the sample area with the flap, place the sample(s) in a zip-lock bag to keep samples dry and mail to the address indicated below:

NATIONAL SWINE REGISTRY

ATTN: DNA

2639 Yeager Road

West Lafayette, IN 47906

Phone: 765.463.3594

# DNA Sample Collection Procedures

This instruction sheet is intended to assist National Swine Registry members in collecting DNA samples for submission to the NSR office and to meet DNA requirements for sires when registering purebred Duroc, Hampshire, Yorkshire and Landrace litters. **Only OFFICIAL NSR BLOTTER/HAIR CARDS will be accepted.** Cards must be purchased from the NSR office for \$6 each.

## Blood Collection



Locate vein on ear. Clean area with moistened cloth (water or rubbing alcohol). Wipe dry. Pierce vein with sharp end of the disposable lancet (provided) or a clean, sterile hypodermic needle.

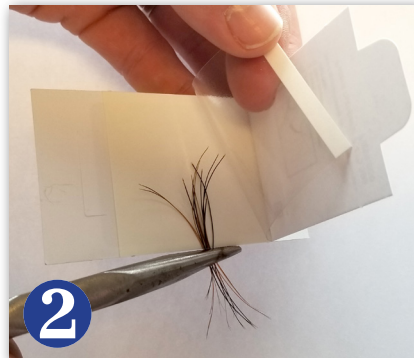


Withdraw lancet. Allow blood to collect on skin's surface. Allow blood to drip onto all 4 blotter card indicator circles. Make sure blood soaks through felt paper. Let card dry for 24 hours.

## Hair Collection



Using pliers, pull hair making sure follicle (root) is intact.



Place hair on NSR-approved hair card. Make sure follicles are under the clear tab. Trim off excess hair outside the card. Make sure there are 30-50 hair follicles – it may take 4-6 hair pulls to get enough.

### Blotter Card

### Hair Card

Complete the space on the card for Owner, Breed, Ear Notch and Registration Number immediately to assure that sample is properly identified. Complete the breeder information on the NSR Testing Form with the sample ID and Breed.

**3**

Make certain that the sample is correctly identified with the owner, breed, ear notch and registration number.

**4**

Return the **BLOTTER** or **HAIR** card to the NSR office with the DNA Testing Form, and indicate the sample banking and/or diagnostic tests requested for the corresponding sample.

## Type of samples accepted:

- **BLOOD**
- **RAW SEMEN** *DO NOT USE EXTENDED SEMEN* (same as Blood card method • Note on sample it is semen)
- **HAIR**