Section of Medical Genetics School of Veterinary Medicine University of Pennsylvania jdcmtest@vet.upenn.edu



JDCM Linked Marker DNA Test – Announcement Now Accepting Cheek Brushes for JDCM Testing

Blood samples are preferred as a DNA source. However, in an effort to make JDCM Linked Marker Testing more convenient and less costly, we will now also accept cheek (cytology) brushes as a DNA source for our tests, effective immediately.

PLEASE consider the following factors in your decision whether to send blood or brushes.

- Test failure when DNA is obtained from brushes: In our experience, the DNA testing <u>occasionally</u> fails when cheek brushes are used as a DNA source. There are multiple reasons for this potential failure including, insufficient DNA, DNA degradation, substances collected on the cheek brush that interfere with the technology used for the DNA testing, etc.. Whatever the cause of the failure, there are several consequences:
 - Delay in getting test results If the testing fails using DNA isolated from a cheek brush sample, additional purification procedures will be performed on the DNA that was isolated. This takes time, and your test results will be delayed. IF YOU NEED RESULTS IN THE SHORTEST TIME POSSIBLE (between two and three weeks after we receive the sample), PLEASE SUBMIT A BLOOD SAMPLE FOR TESTING.
 - Request for a second sample If after additional purification, the sample still fails to yield a
 result, you will be contacted to request submission of additional brushes or a blood sample.
 At this time, there is no additional charge for processing the repeat sample.
- Risk of sample contamination: Cheek brush samples can potentially be contaminated with hair or saliva from other dogs, or in the case of puppies, with milk from the mother. Since hair, saliva, and milk all contain cells that have DNA, it is therefore possible that results of the DNA-based test can be inaccurate due to this contamination. The cheek brush DNA sample must be collected with this serious concern in mind and every effort must be made prevent any contamination of the sample during the collection and shipping process. Please follow the instructions very carefully and DO NOT submit cheek brush samples from puppies that are housed with nursing dams, even if they have been weaned.
- Incorrect identification of the Dog: Because cheek brushes can be collected by anyone from any dog,
 there is an increased risk of erroneous identification of the animal being named in a test report. We
 have modified our test report so that the source of the DNA sample ("blood" or "cheek brush") will be
 on the test result form.

How will you obtain cheek (cytology) brushes?

You can obtain cheek brushes by sending a self-addressed, stamped, business size envelope FOR EACH DOG to be tested, to:

Michael Raducha Ryan Veterinary Hospital, Rm. 4022 University of Pennsylvania 3900 Delancey St. Philadelphia PA, 19104-6010

Not every brush is compatible with the JDCM test procedure. Please only submit brush samples obtained above or call with any questions regarding compatible cheek brushes.