

Marek's Disease Virus Reference Laboratory Guidance for sample submission for MDV PCR tests

<https://www.pirbright.ac.uk/facilities-and-resources/services/diagnostic-testing/mareks-disease-diagnostic-testing>

Correspondence

1. Email correspondence to MDVRL should be sent to MDVRL@pirbright.ac.uk
2. It is essential that senders make contact in advance to ensure samples can be received, advising of sample type, number of samples, tests required, and estimated day of arrival (where possible).

Sample Submission Form

3. The Sample Submission Form should be completed and submitted by email BEFORE the samples are dispatched. Provide all 'essential' information and as much 'desirable' information as possible. If any essential information is missing, you will be asked to provide this before testing can commence.
4. Samples collected and sent from the UK must be shown as being either: Submitted under the Veterinary Surgeons Act (vet's MRCVS number to be provided); Submitted as part of scientific research (ASPA); or a non-invasive sample type (dust).
5. If the samples are not from the UK, please clearly indicate 'Samples from outside UK'.
6. Real-time PCR analyses: vMDV field virus = pathogenic strains (causative agent of Marek's disease); CVI988 and HVT = vaccine strains (including HVT vectored vaccines); MDV-2 (naturally circulating strains considered to be non-pathogenic); Prevexxion-RN (chimeric MDV vaccine).
7. On page 2, a separate line should be used for each sample.

Sample types

8. **Feathers:** Must be 'blood feathers' (developing feathers, with fleshy feather pulp), because hard, dry feathers cannot be tested. Ensure very dirty feathers are not submitted. Four blood feathers are sufficient for each bird. All feathers from one bird should be put in the same tube. After collection, feathers should ideally be stored frozen (-20°C) prior to shipment, but they can be stored refrigerated if they will be shipped next day.
9. **Organs:** One organ (or slice of organ) per tube (it can be difficult to separate several organs that are together in one tube). After collection, organs should be stored frozen (-20°C) prior to shipment.
10. **Poultry house dust:** Preferred dust samples are of homogeneous fine powdery consistency and pale brown in colour. Use a tube to scrape dust from chosen surface until tube is approximately half full. Replace lid. If possible, the outside of tube should be wiped clean using disinfectant or alcohol, and the lid sealed with tape. 5 grams of dust is ample; please do not send more than necessary. After collection, dust may be stored at ambient temperature. For longer term storage it should be frozen at -20°C.
11. **FTA cards:** Organ/tumour smears/imprints, or feather pulp can be submitted on FTA cards. Please ensure the samples are dry before closing the FTA cards to ensure the layers of card do not stick.

Sample packaging

12. A paper copy of the completed Sample Submission Form must be packaged with the samples.
13. Numbers/codes on sample tubes/FTA cards should match those given on the Sample Submission Form.
14. FTA cards should be placed in a sealed plastic bag within an envelope.
15. Organ, feather, and dust samples should be placed in leak-proof sealed plastic tubes (not glass), not in plastic bags (organs and feathers can get crushed; bags of dust samples are very messy to work with; bag seals may leak). The primary tubes should be wrapped in absorbent material, then placed in a crush- and leak-proof secondary container, enclosed in a strong outer package (secondary container surrounded by sealed cold packs or dry ice, if required).
16. Ambient temperature shipment is suitable for dust samples and FTA cards. Feather and organ samples should ideally be shipped chilled (with ice packs) or frozen (with dry ice) but can be sent at ambient temperature if next-day delivery can be ensured.

Package labelling

17. **Address samples to: Marek's Disease Virus Reference Laboratory**, The Pirbright Institute, Ash Road, Woking, Surrey, GU24 0NF.
18. For FTA card samples, **clearly label the outer packaging with the words 'Store at ambient temperature on arrival'**.
19. For organ, feather and dust samples, **clearly label the outer packaging with the words 'Store at -20°C upon arrival'** (all deliveries to Pirbright initially go to central stores; if a package arrives late in the day, or at a time when MDVRL staff cannot collect it, the stores staff will ensure it is safely stored at the correct temperature to avoid sample spoilage, until it is collected by MDVRL staff).
20. Include the **name and affiliation/address of the sender** on the package.

Thank you for your cooperation