

Opti-Spot™ Sample Collection Guidelines

Opti-Spot provides the following benefits:

- Small sample size – only one drop of blood is required; more feasible for ante-mortem sampling
- Saves technician time – no clotting or centrifugation required; no transfer of serum
- Reduced sample preparation time – only an hour or two of drying time required
- Costs savings in supplies – no serum tubes or pipettes; requires only standard overnight envelope at ambient temperature, no ice or insulation necessary

Opti-Spot Protocol

1. Materials required:

- a. **Opti-Spot** card (available from IDEXX BioResearch for no charge)
- b. Lancet or needle

2. Sample labeling:

- a. Label one **Opti-Spot** card with a unique identification number for each sample strip.

3. Opti-Spot:

a. Opti-Spot cards and strips

- The Opti-Spot cards are constructed with 5 individual strips separated by perforations. The strips are easily separated along the perforation lines for individual use.
- On each strip, a 1.0 cm² circle is printed on the face of the Opti-Spot membrane as a guide. It is not necessary that the blood spot be centered within the circle.

b. Opti-Spot sample collection:

- Ante-mortem blood samples may be obtained by lancing the lateralsaphenous, facial or the temporal vein. Touch the Opti-Spot membrane to blood drop as it forms on the surface of the skin.
- If the blood sample is taken by cardiocentesis, quickly dispense one drop of whole blood onto the Opti-Spot strip.
- The blood spot should be of sufficient size (approximately 1 cm²) to nearly fill the printed circle and be of sufficient volume to saturate the membrane. The blood spot will appear similar on both sides of the membrane.
- Allow the blood spot to dry for a minimum of one hour.
- Once dried, fold the protective upper tab over the blood spot and tuck under the lower tab.

4. Sample Shipment:

- a. It is important that the Opti-Spot strip is protected from moisture. Once dry, place Opti-Spot samples in a water-tight plastic bag containing the provided silica gel desiccant pack, and ship samples in a standard overnight envelope.

Ship Samples to:

IDEXX BioResearch
4011 Discovery Drive
Columbia, MO 65201
800-669-0825
idexxbioresearch@idexx.com

Blood Serum Preparation and Shipping SOP

Materials and Equipment

- Blood sample
- Collection tubes (not containing an anticoagulant or clot activator)
- Benchtop centrifuge (NOT refrigerated)

Procedure

1. Allow whole blood without anti-coagulant to clot: overnight at 4o C or for 2-4 hours at room temperature.
2. Centrifuge for 10 min at manufacturer's recommended speed for separation of serum (usually 1000-2000 RCF). Do not use brake to stop centrifuge.
3. Carefully aspirate the serum and dispense into a fresh tube.
4. Add 4 volumes of normal saline diluent, achieving a final dilution of 1:5. For example, add 400 μ l of diluent to 100 μ l of serum. Note: Alternatively, you may achieve an approximate 1:5 dilution by adding 1 volume whole blood to 2 volumes ambient temperature saline (allow diluted blood to clot prior to centrifugation as described above).
5. Five microliters of diluted serum is required for primary evaluation by Multiplex Fluorescent Immunoassay (MFI), irrespective of the multiplicity of the serological assays; however, an additional 75 μ l may be required for confirmatory immunofluorescence assay (IFA) or Western blot (WB) testing. Seventy five microliters (75 μ l) of 1:5 diluted (or 20 μ l of undiluted) serum is the ideal minimum volume needed for primary and confirmatory testing.

Serum samples should be shipped frozen using an overnight service. One or two pounds of ice packs are generally adequate depending on the type of container, the number of samples and the ambient temperature. Optimal shipping conditions are achieved when the entire package with its lid open is frozen overnight at or below -20° C. The use of dry ice is not required.

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