

FLOW CYTOMETRY

Sample Submission Guidelines



Flow cytometry is a laser-based technique for evaluation of white blood cell characteristics. It is a fast, efficient and accurate test for the immunophenotyping of neoplastic round cell populations.

Sample Submission

For optimum viability, submit samples within 48 hours of collection. Blood samples sent within 4 days and tissue samples within 72 hours from collection may be acceptable but not optimal due to reduced cell viability. Samples should be refrigerated immediately after collection. **DO NOT FREEZE THE SAMPLES.** See over for detailed collection and submission requirements.

Indications

- Leukaemia / atypical cell population in peripheral blood
- Lymphoma (organ, lymph node, body cavity fluid)
- Investigation of a peripheral lymphocytosis

Price List (inc. GST)

- Lymphoma / Lymph Node Panel \$200
- Leukaemia Panel \$270
- CBC \$60
- Cytology \$100 (1 site)

All samples come with pathologist interpretation of results.

AVAILABLE ANTIBODIES*

*For dogs, unless otherwise specified

Panleukocyte
CD45

T Lymphocyte
CD3, CD4, CD5, CD8

B Lymphocyte
CD21

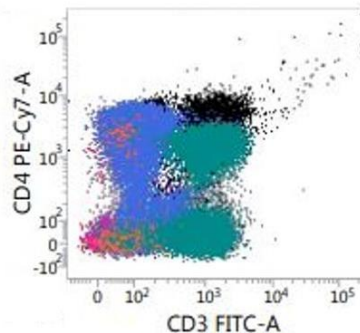
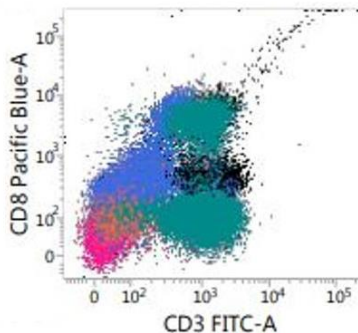
Monocyte
CD14

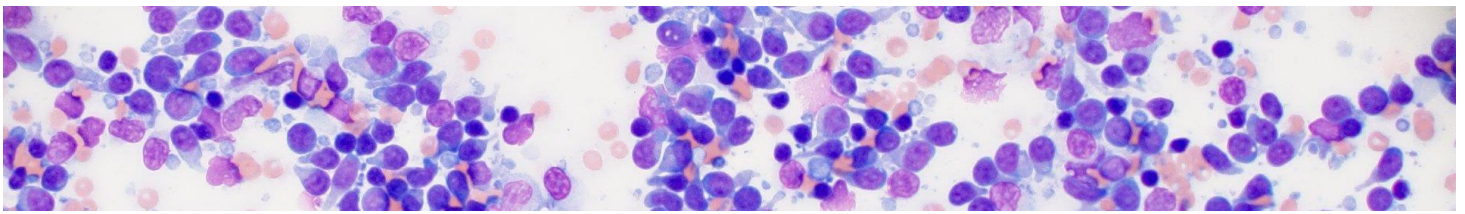
Platelet
CD61

Other
MHCII, MPO, CD34, cell viability marker

Cats
CD4, CD5, CD8, CD21

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SAMPLE REQUIREMENTS

Blood samples

All samples for flow cytometry must have current CBC results and clinical pathologist blood film evaluation (within 2 days of flow cytometry submission). Older samples may be suitable.

Please submit *a minimum sample volume of 1 mL blood in EDTA*. If a concurrent CBC is to be performed, please submit 2 mL of EDTA blood and two fresh blood smears (additional CBC charges will apply).

For leukaemia immunophenotyping, samples with a lymphocytosis and/or circulating atypical cell count $> 5 \times 10^9$ cells/L are recommended. For lower cell counts, please discuss suitability of the sample with our clinical pathologists.

Samples with cell viability $< 70\%$ are not recommended.

Body cavity fluid samples

All samples for flow cytometry must have a body fluid analysis and clinical pathologist evaluation within 24 hours of submission of sample for flow cytometry.

Please submit *a minimum sample volume of 1 mL of fluid in EDTA and a minimum of 0.5 mL of fluid in a plain tube (no gel or SST)*. If a concurrent fluid analysis is to be performed, please submit a further 1 mL of sample in EDTA and two fresh fluid smears (additional fluid cytology charges will apply).

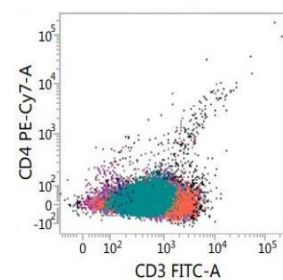
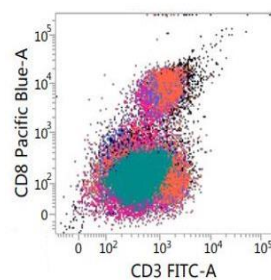
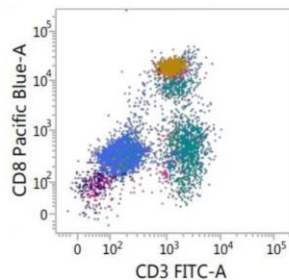
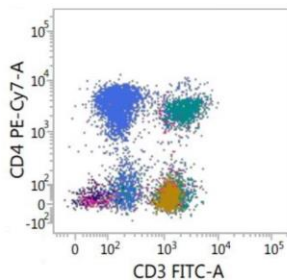
If the fluid sample will not be immediately submitted and the total fluid protein is $< 30\text{g/L}$, please add a few drops of serum from the patient, or another animal of the same species to aid cell preservation.

Organ aspirate samples

All samples for flow cytometry must have a cytologic evaluation within 24 hours of submission of sample for flow cytometry.

Sample collection instructions:

- Place 1 mL 0.9% saline into a plain tube, pot or edta (no Serum-Z, CAT, SST or gel)
- Add 0.1 mL of serum from the patient, or another animal of the same species
- Aspirate the organ (collect from multiple areas with multiple aspiration attempts) and gently expel contents into saline/serum tube
- Rinse residual cells from the syringe by drawing up saline/serum mixture and gently expel back into the tube. Repeat aspiration and rinsing until the saline/serum solution looks slightly turbid
- If sample remains clear, then repeat the organ aspiration and rinsing steps



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