Feline Infectious Peritonitis Diagnosis IFA and IHC tests

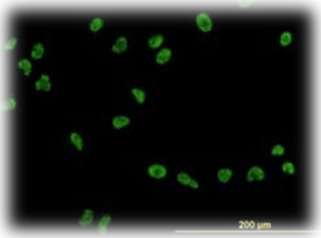
Veterinary Pathology Diagnostic Services

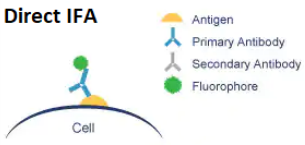
At VPDS we offer a range of diagnostic tools to support the work of small animal practices. Together with Jacqueline Norris, RCVS (Veterinary Microbiology) we are pleased to offer the confirmatory reference tests for the diagnosis of Feline Infectious Peritonitis (FIP): **Immunocytochemistry on effusions and fine needle aspirates (using Direct Immunofluorescence (IFA)] and Immunohistochemistry (IHC) on tissue.**

Feline Infectious Peritonitis

Feline coronavirus (FCoV) is a common and contagious virus spread through cats' faeces. Most cases are asymptomatic or may develop mild intestinal signs such as diarrhea. However, in a small percentage of cats, the virus alters into a more virulent virus which can dysregulate the immune system and lead to feline infectious peritonitis (FIP). FIP is more common in young cats (80% < 2 years old) and male cats. Supportive diagnostic tests include elevated serum globulin and bilirubin and lowered serum albumin, but the definitive diagnosis is done by immunostaining for FCoV antigen.

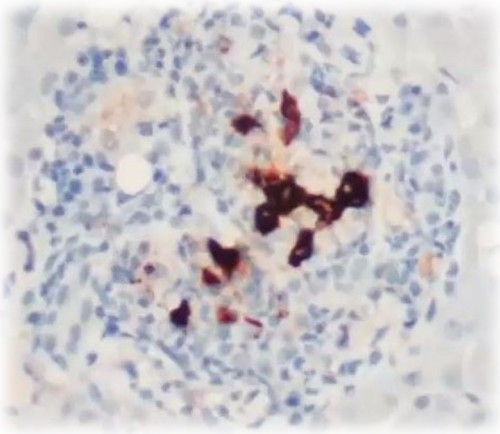
At the **University of Sydney**, the **Veterinary Pathology Diagnostic Services** offers two highly specific tests for the diagnosis of FIP based on immunostaining.





Immunocytochemistry using **direct immunofluorescence (IFA)** of effusion fluid or fine needle aspirates, detects the virus within the cytoplasm of macrophages. This test has a high specificity (>99%) and moderate sensitivity (75%, USYD studies) and it is considered one of two definitive tests.

Immunohistochemistry (IHC) is an immunostaining technique that detects viral antigens in tissue macrophages in context with surrounding pathology. It is also considered a definitive test.



Required samples:

Immunocytochemistry using direct Immunofluorescence (IFA): Effusion fluid in EDTA (E.g., pleural, peritoneal or pericardial). **FNA placed onto slides or preferably placed into EDTA with 0.5mL of sterile 0.9% saline.** Turnaround time is 2 business days following receipt of the sample.

Immunohistochemistry (IHC): Formalin-fixed tissue of biopsies (tissue lesions) or necropsy samples such as liver, kidney, or mesenteric lymph nodes. Turnaround time is 2-3 business days following receipt of the sample.

Please contact VPDS if you have further questions before submitting your samples.

For more information

A/ Prof Damien Higgins BVSc MVetStud PhD, Director VPDS
Sydney School of Veterinary Science | Faculty of Science
T +61 2 9351 2023 | E damien.higgins@sydney.edu.au | E vetsci.vpds@sydney.edu.au
sydney.edu.au/vetscience/vpds/
VPDS Accessions T +61 2 9351 7456