

New: IDEXX Reference Laboratories Announces a Breakthrough in Diagnosing Your Toughest Cases—IDEXX RealPCR™ Tests

Definitive Answers Through Accurate, Fast Real-Time PCR

IDEXX's new Molecular Diagnostics Laboratory, directed by Christian Leutenegger, DrVetMed, PhD, FVH, now offers real-time PCR (polymerase chain reaction) testing—providing you with convenient and affordable access to the accuracy of PCR as part of your routine test menu. Results are returned in just 1–3 days.

With IDEXX RealPCR tests, you can count on:

- **The latest innovation in PCR technology.** Real-time PCR is a closed-tube system that delivers short assay run times that virtually eliminate false positive results.
- **Fast answers.** IDEXX makes results available in just 1–3 days, so you can work through your differential diagnoses faster.
- **Surprising cost savings.** IDEXX RealPCR tests and panels cost about the same as our other laboratory tests and are much more affordable than send-out PCR tests.

What Is PCR?

PCR is a simple yet elegant process in which DNA/RNA is extracted from a patient sample, added to a reaction mix and subjected to heating and cooling cycles. (If the sample contains RNA, the RNA is converted to complementary DNA before PCR.) With each cycle, the amount of target DNA (if present in the sample) increases or *amplifies*. A PCR diagnostic test indicates the presence of a virus, rickettsia, bacterium, parasite or fungal organism by detecting the organism's amplified DNA in the patient sample.

Advantages of Real-Time PCR

In a real-time PCR test, the reaction mix includes fluorescently labeled probes that bind with the amplified DNA, releasing fluorescence as the DNA accumulates. The fluorescence is detected by the PCR instrument as the reaction progresses. Because the amplified DNA never leaves the reaction vessel, results are available quickly and there is no risk of post-processing contamination.

Real-time PCR is considered the most sensitive and accurate molecular diagnostic assay currently in use. IDEXX offers both standalone tests and panels consisting of several real-time PCR assays run on a single sample. IDEXX RealPCR test results are available in 1–3 days.

The real-time closed-tube system combined with rigorous controls, a state-of-the-art facility and constant quality monitoring provide results you can trust.

When Should You Choose PCR as a Diagnostic Tool?

PCR is an excellent diagnostic tool to confirm or rule out the presence of infectious agents in sick animals. PCR is generally believed to be highly effective in identifying disease because of its ability to confirm the presence of infectious pathogens. As with other diagnostic tools, PCR should not be used in isolation. Always consider clinical signs and other diagnostic results.

A New IDEXX Laboratory Exclusively for Real-Time PCR with State-of-the-Art Quality Controls

IDEXX has employed Christian Leutenegger, DrVetMed, PhD, FVH, to design and build a molecular diagnostics laboratory devoted exclusively to real-time PCR for veterinary medicine. Dr. Leutenegger joined IDEXX after directing the Lucy Whittier Molecular & Diagnostic Core Facility at University of California, Davis, from 2000 to 2006.

The new IDEXX Molecular Diagnostics Laboratory is a fully automated facility providing separate laboratories and workflows for each step in the real-time PCR process. A pressure gradient prevents contaminating material from entering the clean lab where PCR reactions are prepared, while a continuous monitoring program allows IDEXX to identify contamination

risks before the diagnostic process is compromised. Stable, quality-controlled reagents and disposables produce high reproducibility and reliability. IDEXX uses the following controls to ensure quality at every test step: quantitative DNA/RNA controls to assess the quality of each clinical sample; extraction controls for every DNA/RNA extraction cycle to ensure the absence of contamination; and internal positive and negative controls to verify each real-time PCR test for optimal performance and the absence of contamination.

Tests Available Now

Tests can be ordered separately or in panels, including CBCs and chemistry profiles. The menu of real-time PCR panels and standalone tests will continue to grow. The turnaround time for all assays is 1–3 working days. As of June 1, the following assays were available:

Code	Test Name	Contents	Specimen Requirements
2512	Feline Upper Respiratory Disease (Feline URD) Panel	Feline herpesvirus-1 (FHV-1), feline calicivirus (FCV), <i>Chlamydomphila felis</i> , <i>Bordetella bronchiseptica</i> and <i>Mycoplasma felis</i>	Deep pharyngeal swab with visible organic material on swab (please rub firmly) and a conjunctival swab (wipe eye clean, swab inside of eyelid). Please submit swabs dry, without transport media, in the same serum tube or in an empty, sterile tube; keep refrigerated.
1717	Feline Hemotropic Mycoplasma (FHM) Test (formerly <i>Haemobartonella</i>)	<i>Mycoplasma haemofelis</i> (<i>Haemobartonella</i>), <i>Candidatus Mycoplasma haemominutum</i> and <i>Candidatus Mycoplasma turicensis</i>	2 mL EDTA whole blood, lavender-top tube; keep refrigerated.
2265	Canine Distemper Virus (CDV) Test	Canine distemper virus	EDTA whole blood and either CSF, deep pharyngeal swab, fecal sample or conjunctival swab (depending on clinical manifestation); keep refrigerated.
2524	Canine Respiratory Disease (CRD) Panel	<i>Bordetella bronchiseptica</i> , canine influenza virus, canine distemper virus, canine adenovirus type 2, canine parainfluenza virus type 3, canine herpesvirus and canine respiratory coronavirus	Deep pharyngeal swab with visible organic material on swab (please rub firmly) and a conjunctival swab (wipe eye clean, swab inside of eyelid). Please submit swabs dry, without transport media, in the same serum tube or in an empty, sterile tube; keep refrigerated.

Learn More About IDEXX RealPCR Testing as a Diagnostic Tool for Your Practice

The IDEXX nationwide network of laboratories provides daily courier service or IDEXX-Direct® service to pick up your samples and forward them to our Molecular Diagnostics Laboratory in California. IDEXX RealPCR tests are run daily, Monday–Friday. Samples received on Saturday or Sunday are processed on Monday. You can expect results in 1–3 working days, depending on shipping time.

For more information about IDEXX RealPCR panels and standalone tests, call the Internal Medicine Team at IDEXX Reference Laboratories, 1-888-433-9987—select option 4, then option 2. If you are not currently an IDEXX Reference Laboratories customer and would like to try IDEXX RealPCR, ask to speak with your sales representative.

The information contained herein is intended to provide general guidance only. As with any diagnosis or treatment, you should use clinical discretion with each patient based on a complete evaluation of the patient, including history, physical presentation and complete laboratory data. With respect to any drug therapy or monitoring program, you should refer to product inserts for a complete description of dosages, indications, interactions and cautions.

