



Antech introduces veterinary medicine's most advanced parasite screening test

First PCR test for parasites detects 20 intestinal parasites, emerging threats like treatment-resistant hookworm and zoonotic Giardia

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Representing two decades of foundational research and a new standard of care in veterinary medicine, Antech Diagnostics announced today veterinary medicine's most sensitive test for intestinal parasites affecting cats and dogs. KeyScreen™ GI Parasite PCR, a molecular diagnostic test, detects 20 parasites, including anthelmintic drug-resistant hookworm and zoonotic *Giardia* from a single, storable 0.15 gram sample. Antech's investment in molecular technology, including 10 testing locations across North America, supports affordable next-day results, making advanced molecular parasite screening practical for routine wellness exams.

Parasites are increasing, migrating and mutating. Zoonotic diseases, opportunistic animal diseases that can infect humans, are on the rise. In veterinary medicine, treatment-resistant hookworms are also an emerging threat to canine health. The need to better understand, detect and treat parasitic threats effectively has never been greater. However, today's parasitic infection challenges have outpaced the capabilities of existing screening tests, the most common being the 100-year-old Ova and Parasite (O&P) diagnostic protocol. Available diagnostics are neither sensitive nor comprehensive enough to detect the breadth of parasites that are of significant concern to pet health: they can't identify zoonotic potential, nor can they detect treatment resistance. The lack of diagnostic advancement in the last decade has made it difficult to understand when and what treatment is required or if there's a human health risk. Overtreatment can follow, which only exacerbates the threat of treatment resistance.

"The Covid-19 pandemic has shown us—with vivid clarity—how human and animal health are interconnected, the danger and speed of mutations, and the critical need for sensitive, fast, affordable diagnostic testing," said Christian M. Leutenegger, Dr.Med.Vet., B.Sc., Ph.D., FVH, Director of Molecular Diagnostics, R&D at Antech and inventor of KeyScreen GI Parasite PCR test. "Emerging challenges like multiple drug resistance in hookworms and the presence of zoonotic parasites require focused attention, but current diagnostics lack the sensitivity that we need to find and treat parasites appropriately and effectively. Molecular testing is a sophisticated new tool with numerous advantages, including an exquisite ability to have a lens into the DNA of a parasite. I like to say that 'molecular testing can tell you what color eyes the parasite has.' Current and unrecognized threats demand this level of precision to ensure animal and human well-being."

Molecular methodology reads the genetic material of a parasite or virus, making it the most powerful diagnostic platform in human and animal medicine. KeyScreen advances veterinarians' ability to identify, treat and protect pets and pet owners from disease by detecting 20 parasites from a single 0.15 gram sample, which can be stored for up to 10 days with refrigeration. Leveraging a substantial investment in molecular technology, KeyScreen is affordable and offers



next-day results for most North American practices, making it practical for routine screening and annual wellness exams.

"Parasites are a major threat to the health of both pets and their families, especially as we've seen the threat of parasites expanding into new areas over the years," said I. Craig Prior, B.V.Sc., C.V.J. Board Member, Past-President, Companion Animal Parasite Council. "I welcome innovations like this that provide my veterinary colleagues better and better tools to detect parasitic disease and continue their leadership in preventative medicine, and the One Health initiative for the family."

KeyScreen GI Parasite PCR offers several novel capabilities, supporting practice efficiency, rapid, cost-effective detection of more disease and a new, higher standard of care for parasite screening.

Find more disease. Treat appropriately—KeyScreen detects 20 parasites of importance in veterinary medicine, offering the only method to differentiate tapeworms, detect *Toxoplasma* and identify roundworm strains, whipworms, protozoa and coccidia. Facilitating a new level of precision medicine, the test allows veterinarians to deliver the right treatment to pets the first time, helping them regain health faster and eliminating repeat visits.

Detect treatment-resistant hookworm—Hookworms are one of the most prevalent intestinal parasites affecting dogs, and prevalence is rising dramatically: they're also zoonotic. While there are several treatments, intensive overuse has created high levels of anthelmintic resistance and multiple drug resistance (MDR). KeyScreen not only detects hookworm, it also automatically checks for the genetic resistance marker, delivering vital information to inform effective treatment. KeyScreen's unique capability helps veterinarians restore a dog's health faster while protecting vulnerable human populations from a zoonotic threat.

Determine zoonotic potential of *Giardia*—While the risk of contracting disease from pets remains low, there are critical advantages to knowing if a pet is infected with a zoonotic assemblage. Of the seven known *Giardia* assemblages, two have the potential to be zoonotic. KeyScreen automatically checks for the assemblages that may threaten human health, giving veterinarians specific information to make informed treatment decisions as well as counsel or reassure pet owners about potential risks to older adults, children and the immunocompromised.

Freedom from "fecals" and other cost and efficiency gains—KeyScreen delivers valuable benefits to the busy practice. First, it requires a very small sample—0.15 grams—that can be stored refrigerated for up to 10 days. It finds the most parasites the first time using a single test, automatically checking for zoonotic assemblages and resistance markers, eliminating the time and resource strain of repeat pet owner visits. Molecular testing can also eliminate the resources required to process and analyze in-clinic O&P, a task every clinician would likely and happily avoid. Rapid access to more information allows veterinarians to deliver targeted, appropriate treatment faster with significantly less



effort, offering pet owners and practices the time and cost savings that naturally follow when staff can devote more time to patient care.

Uphold One Health priorities—As the COVID-19 pandemic wears on, awareness of veterinarians' role as One Health stewards has never been greater. Molecular diagnostics allow veterinarians to strengthen their commitment to One Health priorities, specifically pharmacological stewardship and the responsible use of anthelmintic drugs, by delivering precise information about the type of infection present. Using the most sensitive intestinal parasite screening panel, veterinarians can make treatment decisions with confidence while educating pet owners about the responsible use of therapy.

Continued Dr. Leutenegger: "We don't know what we don't know, and there's much to learn about parasites that could impact animal and human health now and in the future. While we are aware of emerging issues like treatment-resistant hookworm infections, there could be latent risks from parasites that we once believed to be insignificant. Antech has made a significant investment in and commitment to molecular diagnostics to make it accessible, affordable and practical for routine use so that veterinarians can not only find and treat more disease the first time but also uphold the One Health priorities that are central to their mission—all while safeguarding animal health, their own health and the health of others."

KeyScreen™ GI Parasite PCR will be available in the Spring of 2022. To learn more about KeyScreen and Antech's commitment to molecular diagnostics, please visit
<https://www.antechdiagnostics.com/keyscreen>

About Antech

At the heart of Antech is our love for pets. We combine innovative technologies backed by scientific rigor with data-driven insights and consultative moments to help veterinarians and their teams improve the health and well-being of the pets we love. Our commitment to customers spans more than 30 years and celebrates their dedication to setting new standards in pet care quality, which we support through innovative diagnostic, imaging, education and support services. Today, Antech is driving the future of pet health as part of Mars Veterinary Health, a family-owned enterprise focused on veterinary care. Visit us at antechdiagnostics.com. Follow us on [Instagram](#), [Twitter](#), [LinkedIn](#) and [Facebook](#).

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