

Our Tests: Dogs

CanCan Diagnostics is a veterinary diagnostics company developing advanced blood tests for the detection and monitoring of cancer in dogs and cats.

Our core technology uses next generation sequencing to identify cancer related mutations in either cell-free DNA or tumour samples.

TEST	SPECIES	SAMPLE	GENES	COVERAGE	REPORTED
K9-LiquidDx™	Dog	Blood, effusion, urine	75	>10,000×	Up to 3 weeks
K9-Tissue Core™	Dog	FFPE or FNA	75	>200×	Up to 3 weeks
K9-Tissue TMB/MSI™	Dog	FFPE or FNA	499	>500×	Up to 3 weeks

CANINE TESTS (K9 SERIES)

K9-LiquidDx™ — liquid biopsy from a blood sample

K9-LiquidDx™ is an advanced liquid biopsy that detects circulating tumor DNA (ctDNA) in a dog's bloodstream. By combining a simple blood test with highly advanced genetic sequencing, K9-LiquidDx™ provides a unique tool to support diagnosis and a minimally invasive way to monitor canine cancer, while also providing information that may help inform therapeutic interventions. In many cases, it can reduce the need for more invasive procedures, requires no sedation or anesthesia for most dogs, and provides highly sensitive genetic information that can help guide personalized treatment and long-term cancer management.

K9-LiquidDx™ has been developed specifically for highly sensitive cancer monitoring. It uses ultra-deep sequencing at more than 10,000x coverage, enabling the

detection of very low levels of tumor DNA that may not be identified by conventional sequencing methods (<0.1% VAF). The test analyses 75 cancer-related genes, making it suitable for monitoring a wide range of canine cancers and supporting personalized treatment planning.

A blood sample is collected into a specialized collection tube provided by us. Thanks to the stabilizing properties of the tubes, samples remain stable for up to 14 days at room temperature. The sample is then securely shipped to our laboratory, where advanced next-generation sequencing is used to analyze tumor DNA circulating in the blood.

Results are typically available within three weeks and are provided directly to your veterinarian.

SAMPLE REQUIREMENTS

Blood — K9-LiquidDx™ - please note that the assay can also be performed on effusions and urine

- Majority of dogs (10-35 kg): **10 ml of whole blood** collected into the stabilizer tube provided

- Miniature breeds of dogs (<3kg): **3 ml of whole blood** collected into the stabilizer tube provided

- Small breeds of dogs (3-10 kg): **5 ml of whole blood** collected into the stabilizer tube provided

- Giant breeds of dogs (>35 kg): **20ml of whole blood** collected into the stabilizer tube provided

CANINE TESTS (K9 SERIES)

K9-Tissue Core™ — 75 gene targeted tumour panel

K9-Tissue Core™ is an advanced but cost-effective tumor sequencing panel aimed at sequencing tumor tissue. It's recommended, when you want to identify if tumor carries well established therapeutic targets, such as: BRAF V595E mutation or ERBB2 amplification in urothelial carcinomas or TP53, PTEN, PIK3CA, NRAS in hemangiosarcoma; PTPN11 or KRAS mutations in canine histiocytic sarcoma; various prognostic factors in canine lymphoma such as TP53, TRAF3, MYC, and SETD2 in canine lymphoma.

K9-Tissue Core™ has been developed specifically to detect somatic mutations in well-characterized, commonly diagnosed canine cancers. Genes are sequenced to a depth of at least 200x, enabling precise detection of tumor DNA variants. The test analyses 75 cancer-related genes, providing valuable information about tumor biology, prognosis and potential therapeutic targets.

CANINE TESTS (K9 SERIES)

K9-Tissue TMB/MSI™ — 499 genes and 157 microsatellite markers

K9-Tissue TMB/MSI™ is an advanced genomic test sequencing tumor tissue and designed to provide detailed molecular profiling of canine tumors. By analyzing 499 cancer-related genes and selected 157 microsatellite markers, the test identifies important genetic changes within a tumor that can help make more informed treatment decisions and support a personalized approach to cancer care.

The test also evaluates two key immunotherapy biomarkers alongside genomic profiling:

Tumor mutational burden (TMB) measures the number of genetic mutations within a tumor. Certain tumors with a high mutational burden may be more likely to respond to immunotherapy.

Microsatellite instability (MSI) assesses defects in the tumor's DNA repair system. Identifying MSI can provide additional information about tumor behavior and may influence treatment options in selected cases.

Our K9-Tissue can be performed using Formalin-fixed, paraffin-embedded (FFPE) tumor tissue, or fine-needle aspiration (FNA) samples.

K9-Tissue TMB/MSI™ is the only panel currently available on the market that combines both TMB and MSI characterization.

TISSUE SAMPLE REQUIREMENTS

FFPE: 5x5um shavings with at least 30% of tumour content.

FNA slides: 5 cellular slides with at least 30% tumour cell content; prestained slides can still be used

About CanCan Diagnostics

CanCan Diagnostics was founded in 2022 by Dr. Maciej Parys as a spin out from the University of Edinburgh. It won the "Innovation: Animal Health, Agritech, and Aquaculture" award at the 2026 Scotland's Life Sciences Awards.

Order a test

enquiries@cancandiagnostics.com

+44 131 563 6800

cancandiagnostics.com