



Quantum FluoScope

Next generation, quantitative, liquid biopsy tests
and advanced Fluorescence Microscopy

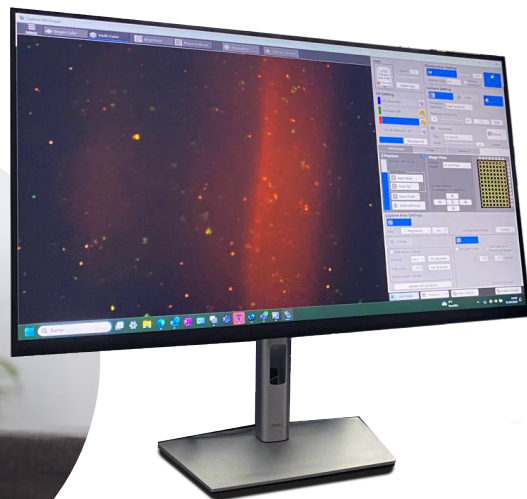


At Frontier Diagnostics, we are united by a shared vision, changing the landscape of cancer diagnostics and care. Many of us have been personally touched by cancer — and that drives our determination to apply deep medical and scientific expertise to create solutions that make a difference.

Our first major breakthrough is the Quantum FluoScope: an AI-powered, clinical-grade platform that detects Circulating Tumour Cells (CTCs) with exceptional precision. Using next-generation fluorescence microscopy, it enables earlier detection, improved treatment decisions, and ongoing monitoring — all through a highly sensitive, easy-to-use system.

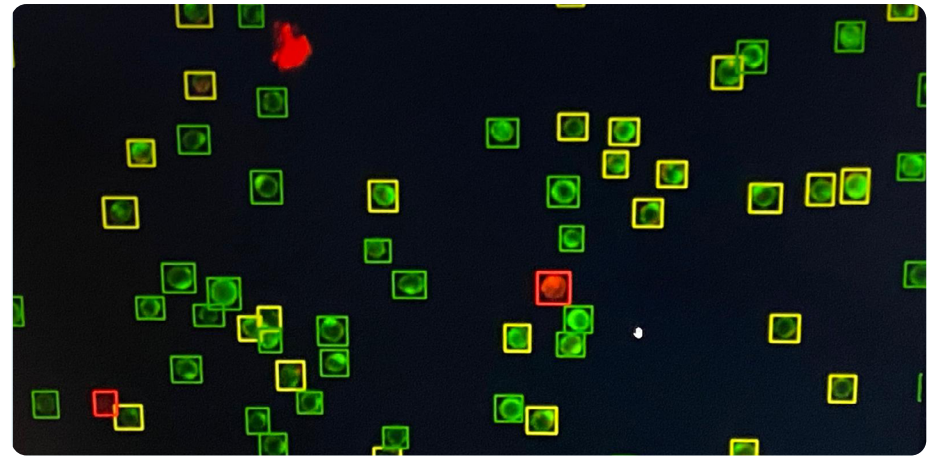
What sets us apart? The Quantum FluoScope combines powerful imaging capabilities with robust AI-driven analysis. Its high sensitivity and reproducibility empower clinicians to detect CTCs at the earliest stages of disease, supporting:

- Timely diagnosis
- More personalised treatment decisions
- Post-treatment surveillance for recurrence



Key features for clinical use:

- **Highly sensitive and accurate** – detects living Circulating Tumour Cells for evidence-based clinical decision-making
- **High definition fluorescence imaging** – enabling quantification of CTCs, helps to select the optimal, targeted choice of chemotherapy



Advanced German engineering has designed an easy-to-use platform for seamless integration with Frontier Diagnostics' Sentinel qCTC cancer assays.

Specification

Microscope: High definition fluorescence scanning microscope

Sensitivity: Detects single CTCs with superior accuracy

Imaging resolution: Precise and clear imaging

Light source: LED excitation system



Why choose the Frontier Diagnostics Sentinel qCTC platform?

The Quantum FluoScope, combined with the Sentinel qCTC assays, is a next-generation solution built to meet the complex demands of modern oncology. Combining high-resolution fluorescence imaging, AI-powered analytics, and intuitive controls, it sets a new standard for real quantitative CTC detection.

System Advantages



Summary of Clinical Benefits

- AI-driven CTC analysis** → ✓ Ideal for long-term surveillance
- Fluorescence imaging** → ✓ Marker-specific diagnostics
- Plug-and-play** → ✓ Fast implementation
- LIMS integration** → ✓ Workflow efficiency
- Upgrade-ready** → ✓ Futureproof system

What's included?

- **Software optimised for quantitative CTC enumeration of living cells**
- **Easy to use controls** – specifically designed for clinical environments and oncology settings
- **Fluorescent microscope unit**
- **Screen** – high definition monitor for viewing and analysing results
- **Keyboard and mouse** – for system control and operation
- **Microscope** – high-precision fluorescence optics with motorised stage
- **2 “XY” interface plugs** – for connecting devices such as LIMs systems
- **User manual** – step by step guide for set-up and usage



Power requirements – 110-240V, 50/60Hz

Connectivity – Includes a USB, Ethernet and HDMI outputs for easy data integration

Technical Specification

Working principle camera	Inverse fluorescence microscope 2,3 MP; CMOS automatic 3
Objective	Objective nose piece, selectable magnification (10x, 20x, 40x) Microwell plate automatic or manual automatic contrast-based
Sample formats	Autofocus routine up to 4 fluorescence channels with LED-excitation e.g. DAPI (Ex. 385 nm)
Fluorescence	FITC (Ex. 470 nm)
Channels	Cy (Ex. 633 nm)
User	External monitor and keyboard
Interface	Automatic and device operation Sample position and focusing
Software	Image acquisition in all fluorescence channels Frontier Diagnostics specific protocol creation application specific functionalities
Power supply	external power supply 24V / 200W (200V/110V)
Dimensions	39cm x 49cm x 32cm (w/d/h)
Total weight	ca.18kg



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Product availability and regulatory status may vary by country.
Please consult Frontier Diagnostics or your local distributor for details.