

Liquid Biopsy – Circulating Tumour Cell (CTC) Test

Before, During & After Cancer Therapy

What Is a CTC Liquid Biopsy?

CTC is a highly sensitive, liquid biopsy test that detects living circulating tumor cells (CTCs) in the blood. These cells, which detach from epithelial tumors or metastases, are considered a biomarker and are responsible for cancer recurrence.

Since approximately 90% of all tumors are of epithelial origin, the CTC method can be applied to a wide range of solid cancers. The test identifies these cells by detecting the EpCAM surface protein on their surface.

By monitoring the number and characteristics of these cells before, during, and after therapy, the CTC test aims to provide an early indication of treatment effectiveness and disease progression.

Why Use a CTC Liquid Biopsy?

- Detects living circulating tumour cells for monitoring tumour dynamics.
- Helps evaluate therapy effectiveness in real time.
- Supports personalized treatment decisions.
- Can detect tumour activity earlier than imaging methods.
- Reduces need for invasive procedures.

Tests and Assessments

- **CTC Cell Counting** is a method for monitoring therapy and tumour activity by tracking the number of circulating tumour cells in the blood. Its primary clinical indications are Therapy Monitoring, Assessing **Minimal Residual Disease, Long-Term Follow-up and Personalized Therapy** (typically measured every 3-6 months).
- **CTC Therapeutic Substance Testing** is an innovative diagnostic tool used to assess the effectiveness of cancer drugs on a patient's own circulating tumour cells (CTCs) *before* treatment begins.
- **CTC Therapy-Relevant Tumour Cell Characteristics** is to predict a patient's potential response or non-response to a specific therapy, particularly targeted treatments. Used for When a traditional tissue biopsy is not feasible, cancer recurs or progresses during a targeted therapy. or In cases of Carcinoma of Unknown Primary (CUP), where the origin of the tumour is unknown.
- **Tumour sphere Analysis** – identifies aggressive cancer stem cells

Who Can Benefit?

- Patients starting cancer therapy
- Individuals undergoing chemotherapy, targeted therapy, or hormone therapy
- Patients in remission needing follow-up
- Those unable to undergo traditional tissue biopsy
- Patients with metastatic disease requiring frequent monitoring

Recommendations for Blood Sampling

- Before the start of neoadjuvant chemotherapy
- Before surgery
- 3 weeks after surgery
- 2–3 weeks after a chemotherapy cycle
- 2–3 weeks after completion of therapy
- At any time during hormone therapy or maintenance therapy
- At any time during a therapy-free period

Sample Requirements

- Volume: 15 ml
- Tube: EDTA
- Safe and minimally invasive

Results & Turnaround Time

- Results are generally available within 7-10 Days
- Delivered securely by email