Genetic Diagnostics

Tumor Diagnostics

Genetic Tumor Analysis to Support Treatment Decision

CeGaT

Genetic Tumor Diagnostics Provides the Basis of Modern Precision Oncology

There is no 'one-size-fits-all' in cancer medicine, as every patient and every tumor is unique. Thus, it is crucial to understand each tumor's disease history in the best possible way.

Every cancer is a result of genetic changes in the tumor genome (somatic mutations) and is therefore considered a genetic disease. If these changes are known, physicians can use this knowledge to determine the optimal treatment: An increasing number of tumor therapies are directed against specific genetic variants. To ensure that no relevant variant is overlooked, CeGaT's genetic tumor diagnostics relies on optimized target enrichment and complement. Sequencing is performed on the most reliable sequencing technology, the NovaSeq platform.

Our interdisciplinary team of experts uncovers and interprets genetic variants responsible for tumor growth, drug resistance, and treatment efficacy and highlights potential pharmaceutical toxicity. Treating physicians receive the results in a comprehensive medical report.

Process

Duration 2-3 weeks

Receipt of tumor tissue in the laboratory (≥ 20 % tumor content; FFPE* or frozen), normal tissue (1-2 ml EDTA blood*), and the order form. Deviating sample material possible upon request (e.g., liquid biopsy).

*Recommended sample type

Parallel sequencing of tumor and normal tissue.

Detection and identification of therapy-relevant mutations by bioinformatic analysis of the sequencing data.

Interpretation and discussion of the results by an interdisciplinary team.

Summary of the results in a comprehensive medical report.

Service Options

- CancerPrecision®
  Comprehensive diagnostics for targeted cancer treatment

- CancerFusionRx®
  RNA-based fusion transcript analysis covering over 150 genes for fusion detection and over 120 exon-exon-specific enrichments with known breakpoints

- CancerNeo®
  Identify neoantigens for personalized cancer vaccine design

- CancerDetect®
  Highly sensitive detection of actionable variants from liquid biopsy with low tumor content

- CancerEssential®
  Evaluate the suitability of planned therapies for the most common tumor entities

- CancerAdvice
  Detailed tumor therapy recommendation

- Diagnostic Panel for Hereditary Tumor Diseases
  Detect hereditary predispositions to cancer

- Disease Prevention Panel
  Understand genetic risk factors and plan health care

Want to Discover More?
We Invite You to Take a Look at Our Website.

Scan the QR code and watch our exciting videos and webinars to find out how genetic tumor diagnostics can assist you in making the best decision for your patients.
www.cegat.com/cancerprecision

Our CancerPrecision® at a Glance

The first choice of genetic diagnostics for cancer patients

Our somatic tumor panel CancerPrecision® is analyzing more than 700 tumor-associated genes and therapy-relevant fusions in more than 30 genes.

Additive features are:

- Fast, extensive and quality assured service
- Suitable for all tumor entities
- Highest data quality by comparison of tumor DNA and matched normal DNA – no false-positive somatic variant predictions, clear separation between germline and somatic variants
- Includes scoring of homologous recombination deficiency (HRD), tumor mutational burden determination (TMB), microsatellite instability prediction (MSI), and detection of viral Infection (HPV, EBV) – essential biomarkers for immunotherapies and PARP inhibition
- Parallel investigation of the germline variants (heredity of tumor diseases) – up to one of five cancers is hereditary. Essential for all family members
- Average coverage of 500-1,000x allows detection of therapy-relevant variants in subclones
- Possibility of parallel RNA-based fusion transcript analysis from tumor RNA (CancerFusionRx®). Fusions are major drivers of cancer and targets for highly specific and effective treatments.

About Us

CeGaT is a global provider of genetic analyses for a wide range of medical, research, and pharmaceutical applications.

Founded 2009 in Tübingen, Germany, the company combines state-of-the-art sequencing technology with medical expertise – with the aim of identifying the genetic causes of diseases and supporting patient care. For researchers and pharmaceutical companies, CeGaT offers a broad portfolio of sequencing services and tumor analyses. CeGaT generates the data basis for clinical studies and medical innovations and drives science forward with its own insights.

The owner-managed company stands for independence, comprehensive personal customer service, and outstanding quality. CeGaT's laboratory is accredited according to CAP/CLIA, DIN EN ISO 15189, DIN EN ISO/IEC 17025, and thus meets the highest international standards. To obtain first-class results, all processes are carried out in-house under scientific supervision. We would be pleased to provide you with our award-winning service.

CAP ACCREDITED
COLLEGE of AMERICAN PATHOLOGISTS

CLIA CERTIFIED ID: 99D2130225

DAkkS
Deutsche Akkreditierungsstelle
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Accredited by DAkkS according to DIN EN ISO 15189:2014

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