



# Comprehensive Molecular Profiling

**WHERE MOLECULAR SCIENCE MEETS ARTIFICIAL INTELLIGENCE**

# Comprehensive Molecular Profiling for Cancer Care

Caris comprehensive tumor profiling assesses DNA, RNA, and Proteins with multiple technologies, revealing a more complete molecular blueprint to decode cancer and guide more precise and individualized treatment decisions.



## DNA

### Whole Exome Sequencing

- 23,000+ genes
- 1,500x for clinical genes
- SNVs, indels, CNA, Karyotyping\*, Viruses\*
- 250,000 evenly spaced genomic SNPs
- HLA Genotype\*
- Genomic signatures



## RNA

### Whole Transcriptome Sequencing

- 23,000+ genes
- 17 million read count
- Fusions, variant transcripts and gene expression\*
- Novel translocation detection independent of intronic breakpoint



## Protein\*

### Immunohistochemistry

- 15+ clinically relevant IHCs (Optimized across ~25 Tumor Types)
- Multiple FDA approved CDx assays for different disease types (per label)
- Controls on every IHC slide
- 4 µm cuts to preserve tissue

## Multiple options for tumor profiling, covering DNA, RNA, Proteins and Predictive Algorithms

	WES	WTS	IHC/Other	AI Signatures
<b>MI Profile™ Comprehensive Testing</b> MI Tumor Seek Hybrid™ + IHCs and Other Tests by Tumor Type.	✓	✓	✓	✓
<b>MI Tumor Seek Hybrid™</b> Next-Generation Sequencing Only: Tissue-based WES and WTS analysis. Caris FOLFIRSTai™* reported for mCRC cases.	✓	✓	—	✓

\*Not available in all locations.

# Intuitive Reports to Guide Clinical Decisions

**Clinicians need comprehensive results that are easy to comprehend.** The Caris report helps guide decisions for a complex disease, with easy-to-interpret results and callouts for key biomarker-drug associations and clinical trials.

**Final Report** | CARIS LIFE SCIENCES

**Patient and Specimen Information**

**Patient**  
 Name: [Redacted]  
 Date of Birth: [Redacted]  
 Sex: [Redacted]  
 Case Number: TN23-  
 Diagnosis: Adenocarcinoma, metastatic, NOS

**Specimen Information**  
 Primary Tumor Site: Upper-outer quadrant of breast  
 Specimen Site: [Redacted]  
 Specimen ID: [Redacted]  
 Specimen Collected: [Redacted]  
 Test Report Date: [Redacted]

**Ordered By**

**Results with Therapy Associations\***

BIOMARKER	METHOD	ANALYTE	RESULT	THERAPY ASSOCIATION	BIOMARKER LEVEL*
ERBB2 (Her2/Neu)	IHC	Protein	HER2-Low	<b>BENEFIT</b> fam-trastuzumab deruxtecan-noki	Level 1
PD-L1 (22c3)	IHC	Protein	Positive, CPS: 15	<b>BENEFIT</b> pembrolizumab + chemotherapy	Level 1
ER/PR/Her2/Neu	IHC	Protein	Triple Negative	<b>BENEFIT</b> sacituzumab govitecan	Level 2
TMB	Seq	DNA-Tumor	High, 18 mut/Mb	<b>BENEFIT</b> pembrolizumab	Level 2
ER	IHC	Protein	Negative (0)	<b>LACK OF BENEFIT</b> endocrine therapy	Level 2
PR	IHC	Protein	Negative (0)		

\* Biomarker reporting classification: Level 1 - Companion diagnostic (CDx); Level 2 - Strong evidence of clinical significance or is endorsed by standard clinical guidelines; Level 3 - Potential clinical significance. Bolded benefit therapies; if present, highlight the most clinically significant findings.

**Important Notes**

**Important Note**

An EML6AD3-PRKCA gene fusion was detected in this tumor. This fusion is in-frame and consistent with other known PRKCA fusions (Stransky 2014 Nat Commun 5:5486).

The chemotherapy regimens for the KEYNOTE-355 trial (pembrolizumab + chemotherapy in TNBC) included paclitaxel, nab-paclitaxel, and gemcitabine + carboplatin. TMB-High status should only be used to guide pembrolizumab treatment when no satisfactory alternative treatment options are available.

**Therapeutic associations are continuously updated based on:**

- FDA approvals
- Industry guidelines
- Clinical literature

**Cancer-Type Relevant Biomarkers**

Biomarker	Method	Analyte	Result	Biomarker	Method	Analyte	Result
Genomic LOH	Seq	DNA-Tumor	High	PIK3CA	Seq	DNA-Tumor	Pathogenic Variant Exon 21   p.H1047R
ERBB2 (Her2/Neu)	Seq	DNA-Tumor	Pathogenic Variant Exon 20   p.G778_P780dup	PRKCA	Seq	RNA-Tumor	Likely Pathogenic Fusion
	CNA-Seq	DNA-Tumor	Amplification Not	BRAF	Seq	RNA-Tumor	Mutation Not Detected

**Clinical Trials**

## Caris Molecular AI

**Caris Molecular Artificial Intelligence™** is the convergence of machine learning with WES and WTS to drive decision making. Caris Molecular AI™ analyzes historical clinical and outcomes data from the Caris clinico-genomic database to identify unique molecular signatures used to guide patient treatment.

### Caris GPSai™ Genomic Prevalence Score

Caris Genomic Prevalence Score AI (GPSai)† is a predictive algorithm to help oncologists identify cancers of unknown primary (CUP) or cases with atypical clinical presentation or clinical ambiguity.

### Caris FOLFIRSTai™ Chemotherapy Response Predictor for mCRC

Caris FOLFIRSTai† is the first clinically validated, AI-powered molecular predictor of chemotherapy efficacy and treatment sequence for mCRC patients.

†GPSai and FOLFIRSTai are not currently available in all locations.

# Pioneering Molecular Intelligence for Cancer Care

**Every cancer is unique, just as every patient is unique.** Precision oncology provides doctors detailed molecular information to develop personalized treatment plans that are right for each individual patient. More than ever, oncologists need a trusted tumor profiling partner to provide reliable, high-quality molecular profiling to guide more precise and individualized treatment decisions.

**Caris Life Sciences is leading the molecular revolution** with the most comprehensive biomarker profiling available, including whole exome sequencing (WES – DNA), whole transcriptome sequencing (WTS – RNA), and immunohistochemistry (IHC – 15+ tumor-relevant). As a pioneer in precision oncology since the dawn of this exciting new industry, Caris is shaping the future of healthcare—and with Caris molecular profiling, we're setting a new standard for delivering accurate, actionable results that help improve patient outcomes and save lives.

**Caris provides the most advanced and comprehensive tumor profiling enhanced by artificial intelligence, helping oncologists to:**

- Navigate among therapies with potential benefit
- Identify therapies that may not have been considered
- Determine drugs with potential lack of benefit (avoiding unnecessary toxicities and costs)
- Match patients to clinical trials



[www.CarisLifeSciences.com](http://www.CarisLifeSciences.com)

US: 888.979.8669 | [CustomerSupport@CarisLS.com](mailto:CustomerSupport@CarisLS.com)  
International: 00 41 21 533 53 00 | [InternationalSupport@CarisLS.com](mailto:InternationalSupport@CarisLS.com)

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