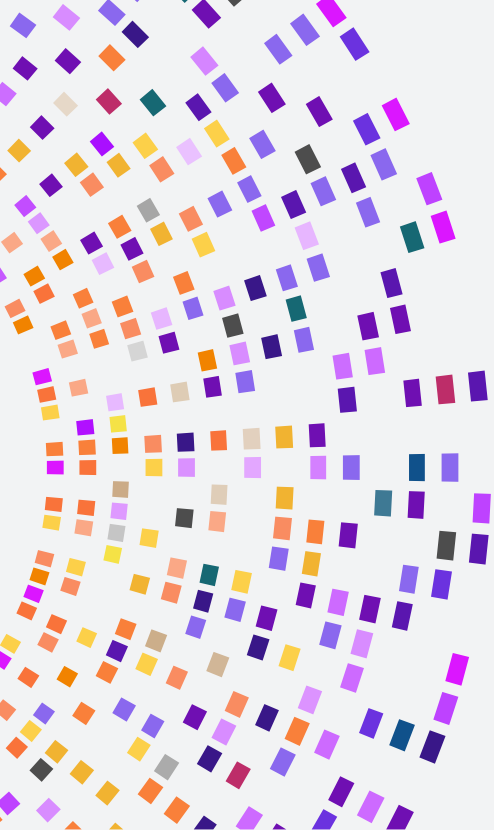
oncoExTra™
by EXACT SCIENCES



DNA is only half the genomic story

In advanced cancers, ultra-comprehensive genomic profiling requires more than DNA alone.

20% of cancer morbidity occurs in tumors driven by translocations and gene fusions, according to one estimate.[1] Many of these variants are actionable and may be missed by DNA panel-based testing.[2,3]

Panel-based and hotspot testing could be missing actionable variants[2,3]

	DNA	RNA	Paired Tumor-Normal Match
Hotspot DNA	✓		
Hotspot RNA		✓	
Comprehensive genomic profiling (Fixed-panel DNA sequencing)	✓		
OncoExTra™ (whole-exome DNA sequencing + whole-transcriptome* RNA sequencing)	✓	✓	✓

WES (DNA): Allows for comprehensive analysis of all protein-coding genes in a sample

WTS (RNA): Allows the identification of transcript variants and fusion genes that may be undetectable through conventional CGP tests, which only employ DNA analysis

DNA+RNA is the natural evolution of CGP,
exposing all variants and leading to the most personalized care[4,5]

More variants, more actionability with **OncoExTra™**

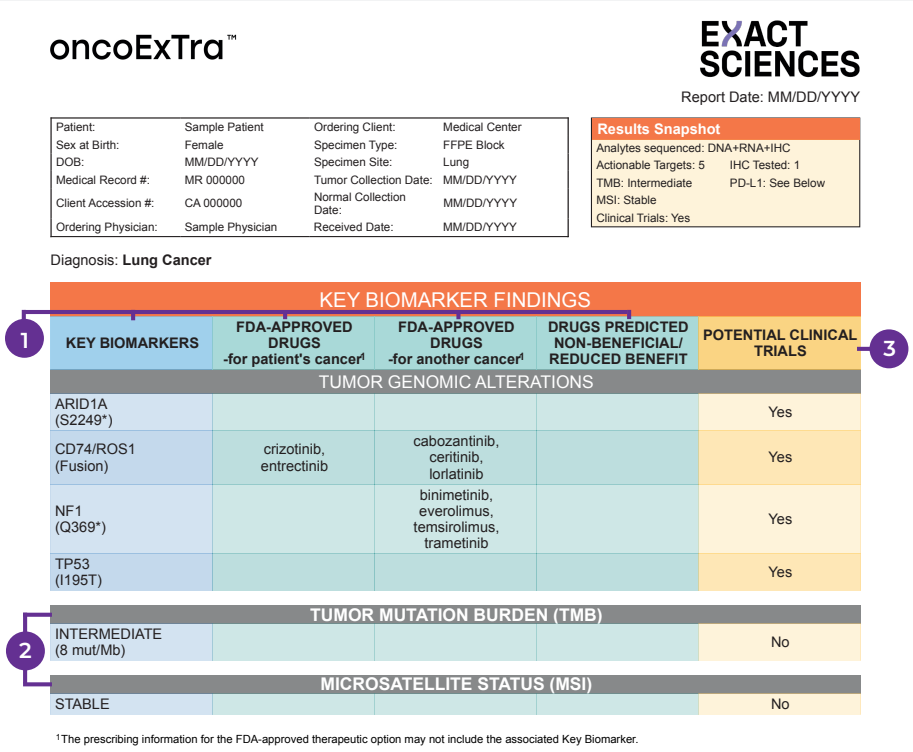
A DNA+RNA profiling test for solid tumors[6] that offers:

- Interrogation of nearly 20K genes
- 98.8% sensitivity / >99.9% specificity
- Tumor and normal-matched sequencing
- Optional immunohistochemical (IHC) panels/single stains for added detail†

Clinically proven in a study[6]:

41% of fusions detected at the RNA level alone‡

At least 1 clinically actionable variant was identified on 83.9% of reports‡§



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Report Date: MM/DD/YYYY

Patient:	Sample Patient	Ordering Client:	Medical Center
Sex at Birth:	Female	Specimen Type:	FFPE Block
DOB:	MM/DD/YYYY	Specimen Site:	Lung
Medical Record #:	MR 000000	Tumor Collection Date:	MM/DD/YYYY
Client Accession #:	CA 000000	Normal Collection Date:	MM/DD/YYYY
Ordering Physician:	Sample Physician	Received Date:	MM/DD/YYYY

Results Snapshot

Analytes sequenced: DNA+RNA+IHC
Actionable Targets: 5 IHC Tested: 1
TMB: Intermediate PD-L1: See Below
MSI: Stable
Clinical Trials: Yes

Diagnosis: **Lung Cancer**

KEY BIOMARKER FINDINGS

KEY BIOMARKERS	FDA-APPROVED DRUGS -for patient's cancer[1]	FDA-APPROVED DRUGS -for another cancer[1]	DRUGS PREDICTED NON-BENEFICIAL/ REDUCED BENEFIT	POTENTIAL CLINICAL TRIALS
TUMOR GENOMIC ALTERATIONS				
ARID1A (S2249*)				Yes
CD74/ROS1 (Fusion)	crizotinib, entrectinib	cabozantinib, ceritinib, lorlatinib		Yes
NF1 (Q369*)		binimetinib, everolimus, temsirolimus, trametinib		Yes
TP53 (I195T)				Yes
TUMOR MUTATION BURDEN (TMB)				
INTERMEDIATE (8 mut/Mb)				No
MICROSATELLITE STATUS (MSI)				
STABLE				No

[1]The prescribing information for the FDA-approved therapeutic option may not include the associated Key Biomarker.

Reporting that's easy to interpret and easy to access

1. Mutations and fusions associated with FDA-approved treatments††
2. Immuno-oncology signatures (TMB/MSI)
3. Clinical trial options

Provider portal:

Results delivered to you within 14 days of receiving both samples via a secure and convenient online portal[6]

Get the full genomic story with a spotlight on what matters most.

To order, visit OncoExTra.com/order

*Whole-transcriptome sequencing with select variants reported in New York State

†IHC testing not currently available in New York State

‡Retrospective analysis of 1509 clinical reports, of which 1261 included both DNA and RNA profiling. Among the 75 reports with clinically actionable fusions detected in the RNA, 31 had RNA findings only[6]

§Clinically actionable variants are defined as variants that are associated with available therapies or clinical trial enrollment for a specific somatic variant identified in a patient's tumor[6]

††The OncoExTra test is not an FDA-cleared or -approved IVD device or companion diagnostic for the referenced biomarkers and FDA-approved therapies

References

1. Mitelman F, Johansson B, Mertens F. The impact of translocations and gene fusions on cancer causation. Nat Rev Cancer. 2007;7(4):233-245. **2**. Drenner K, Basu GD, Goodman LJ, et al. The value of comprehensive genomic sequencing to maximize the identification of clinically actionable alterations in advanced cancer patients: a case series. Oncotarget. 2021;12(18):1836-1847. **3**. Nikanjam M, Okamura R, Barkauskas DA, Kurzrock R. Targeting fusions for improved outcomes in oncology treatment.18;15(6):353-365. Cancer. 2020;126(6):1315-1321. **4**. Berger MF, Mardis ER. The emerging clinical relevance of genomics in cancer medicine. Nat Rev Clin Oncol. 2018;15(6):353-365. **5**. Freedman AN, Klabunde CN, Wiant K, et al. Use of next-generation sequencing tests to guide cancer treatment: results from a nationally representative survey of oncologists in the United States. JCO Precis Oncology. 2018;2:1-13. **6**. White T, Szelinger S, LoBello J, et al. Analytic validation and clinical utilization of the comprehensive genomic profiling test, GEM ExTra®. Oncotarget. 2021;12(8):726-739.

M-US-GEM-00052_1123

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