

Comprehensive
Tumor Profiling
of Immune
Response and
Systems Biology

HTG EdgeSeq
Immuno-Oncology
Assay

HTG EdgeSeq
Oncology
Biomarker Panel

A new frontier in the research of cancer therapeutics

HTG provides multiplexed gene expression assays and automation platforms that leverage the power and sensitivity of next-generation sequencing (NGS).

Designed to empower precision medicine, HTG's extraction-free chemistry provides more data from small samples, such as microdissected regions from FFPE sections.

HTG's solutions can be used by translational and pre-clinical researchers working in the field of cancer immunology and/or cancer immunotherapy.

A deeper understanding of immune response and tumor behavior allows for the research of targeted therapies with the goal of improving patient outcomes.

Get the complete picture



The HTG EdgeSeq Immuno-Oncology Assay characterizes the immune response in tumor microenvironments while the HTG EdgeSeq Oncology Biomarker Panel allows for comprehensive interrogation of the tumor.

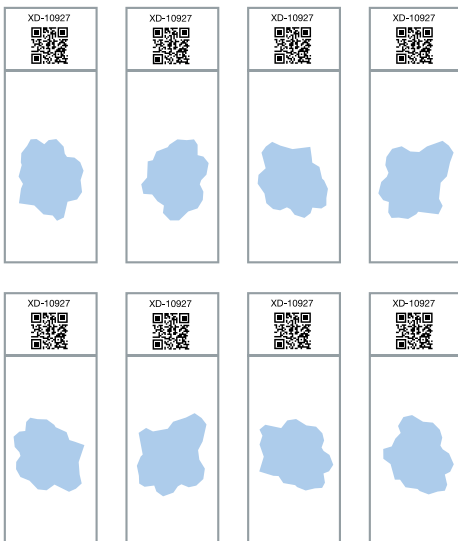
The sensitivity and dynamic range of next-generation sequencing paired with the specificity of HTG EdgeSeq chemistry enables measurement of the expression of hundreds of genes with minimal sample input required.

Applications include:

- *Assessing the tumor microenvironment*
- *Measuring total T cell load*
- *Characterizing immune response in tumors*
- *Evaluating drug targets*
- *Evaluating prognostic drug signatures*
- *Profiling tumor infiltrating lymphocytes (TILs) and FACS-enriched cells*
- *Conducting pathway analysis*

Traditional

8 slides



HTG

1 slide



Sample

Profile challenging sample types, including FFPE tissue, to deliver more data from less material.

Sensitivity

Leverage HTG's extraction-free chemistry to deliver robust, reproducible data, even for low-expression markers.

Data

Deliver comprehensive results from a platform technology that can be used from translational medicine through clinical development.

Understand the tumor microenvironment

Analyzing localized regions of tumors can provide insights into how tumors escape immune surveillance. A better understanding of the responsiveness of tumors to specific immuno-oncology-based treatments can be achieved by characterizing the behavior of these regions within the tumor and stroma.

Case in Point

Faced with extremely limited material from a study cohort, a pharmaceutical development company wanted to reveal the underlying biology in tumor biopsies, understand drug response and identify an immune signature for predicting patient response.

As a solution, the HTG EdgeSeq Immuno-Oncology Assay and HTG EdgeSeq Oncology Biomarker Panel were used to profile immuno-oncology and tissue histology markers while simultaneously performing therapeutic pathway analysis.

Sample

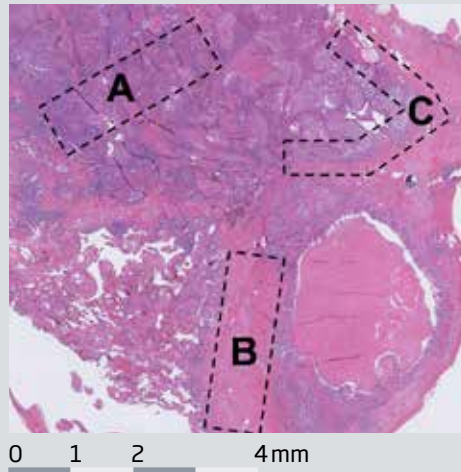
Perform analyses of multiple tumor regions using a single FFPE section.

Sensitivity

Benefit from NGS detection sensitivity and dynamic range to consistently measure small changes in high- and low-expressing genes.

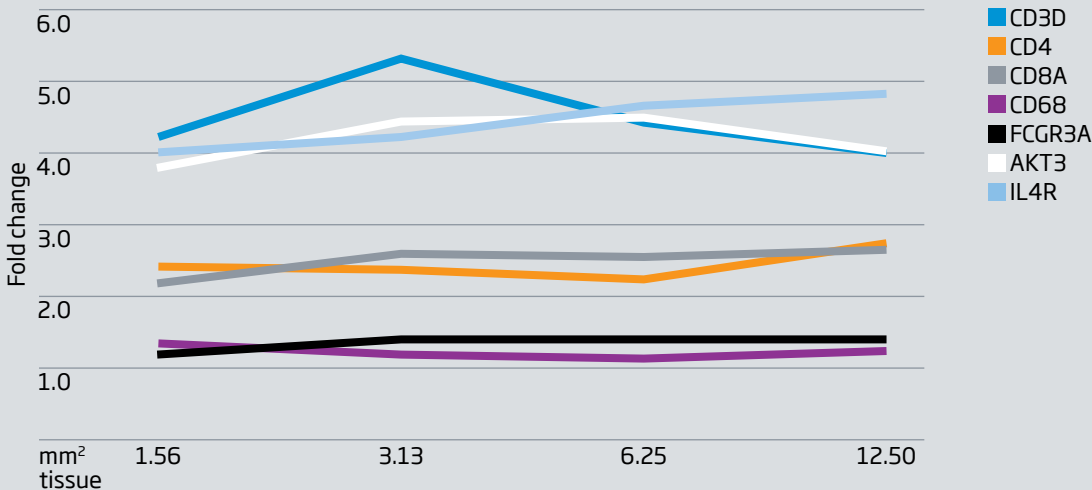
Data

Illuminate patterns of gene expression critical in immune response, improving patient enrichment strategies.

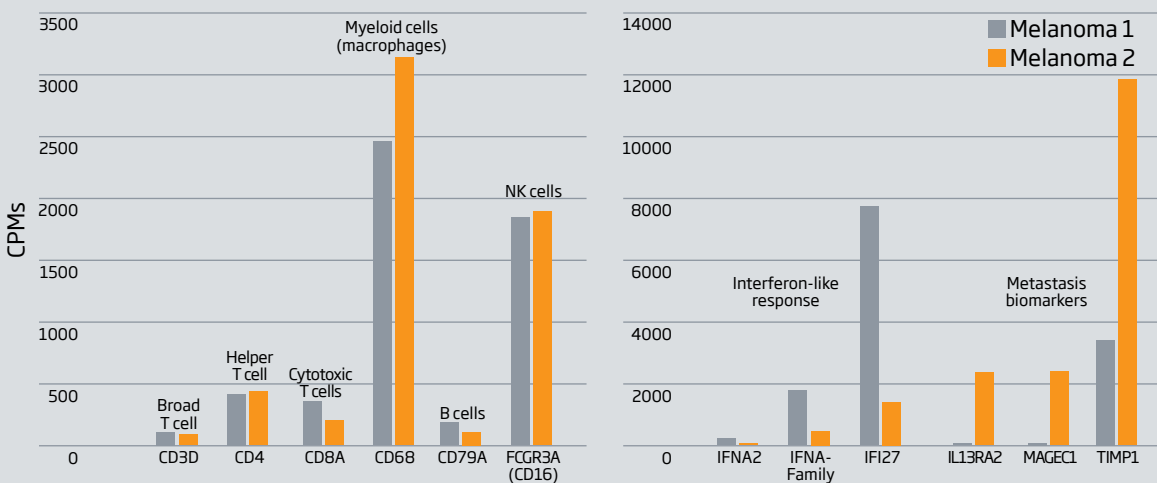


- A** Tumor
- B** Stroma
- C** Peritumoral region

HTG EdgeSeq assays allow assessment of individual microdissected regions from as little as 1.5 mm² of a single 5-micron unstained FFPE tissue section



Fold changes in expression across a range of FFPE tissue sample input amounts using the HTG EdgeSeq Immuno-Oncology Assay



While classic immunophenotyping biomarkers show a similar profile, an analysis with the HTG EdgeSeq Immuno-Oncology Assay of interferon-related and metastasis biomarkers shows a differential response

Make success possible

HTG EdgeSeq Immuno-Oncology Assay

Illumina	916-005-208	HTG EdgeSeq Immuno-Oncology Assay ILM (2x8)
	916-005-008	HTG EdgeSeq Immuno-Oncology Assay ILM (4x8)
	916-005-224	HTG EdgeSeq Immuno-Oncology Assay ILM (1x24)
	916-005-024	HTG EdgeSeq Immuno-Oncology Assay ILM (4x24)
	916-005-096	HTG EdgeSeq Immuno-Oncology Assay ILM (1x96)
Ion Torrent	916-005-308	HTG EdgeSeq Immuno-Oncology Assay IT (2x8)
	916-005-108	HTG EdgeSeq Immuno-Oncology Assay IT (4x8)
	916-005-324	HTG EdgeSeq Immuno-Oncology Assay IT (1x24)
	916-005-124	HTG EdgeSeq Immuno-Oncology Assay IT (4x 24)

HTG EdgeSeq Oncology Biomarker Panel

Illumina	916-002-208	HTG EdgeSeq Oncology Biomarker Panel ILM (2x8)
	916-002-008	HTG EdgeSeq Oncology Biomarker Panel ILM (4x8)
	916-002-224	HTG EdgeSeq Oncology Biomarker Panel ILM (1x24)
	916-002-024	HTG EdgeSeq Oncology Biomarker Panel ILM (4x24)
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	916-002-124	HTG EdgeSeq Oncology Biomarker Panel IT (4x24)

HTG EdgeSeq Systems

HTG EDGE-SQ-100	HTG EdgeSeq system
HTG EDGE-SQ-100E	HTG EdgeSeq system CE-IVD
HTG EDGE-SP-010	HTG EdgeSeq processor
HTG EDGE-PC-001	HTG Edge system PC, algorithm, accessories

For Research Use Only. Not for use in diagnostic procedures.



VERI/O Lab Services

Our in-house VERI/O laboratory services support biomarker research and companion diagnostic development using HTG's extraction-free technology and portfolio of profiling assays. Planned services are expected to include direct sequencing of genetic variants.

CLIA-Certified Partners

For prospective research, HTG has partnered with several CLIA-certified laboratories that provide profiling services using HTG systems and assays. Contact your HTG representative for more information.

Partner with HTG

Commitment

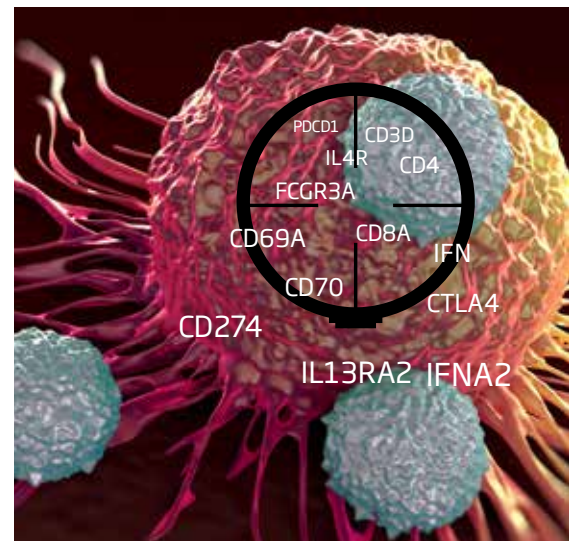
Comprehensive, NGS-based molecular profiling is a critical tool that enables your success in biomarker discovery and drug development. HTG is a committed partner every step of the way: from discovery through clinical development and commercial deployment.

Expertise

The HTG team has a track record of success in leveraging its experience and capabilities in assay development, workflow automation, CDx submissions and global commercialization.

Technology

HTG's extraction-free technology platforms and assays adapt to existing NGS workflows, providing automated solutions that are easily deployed to support your therapeutic and CDx objectives. HTG's solutions are simple, cost-effective, and generate actionable results from clinically relevant samples, especially FFPE tissue.





HTG Molecular

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