

Overview

HTG Molecular's EdgeSeq is a fully automated sample and library preparation platform for targeted RNA sequencing that pairs HTG's extraction-free, high-specificity Edge Chemistry with the high sensitivity and dynamic range of next-gen sequencing. EdgeSeq enables digital quantitation of miRNA and mRNA expression from difficult sample types such as formalin-fixed, paraffin-embedded (FFPE) tissues, plasma and exosomes.

Available Assays

HTG Edge libraries and sequencing assays:

- miRNA Whole Transcriptome Assay
 - Measure the expression of 2,083 human miRNA transcripts using next-generation sequencing (NGS). The HTG EdgeSeq chemistry is compatible with fixed tissue samples, biofluids, and cell lines.
- Autoimmune Panel
 - Measure 2,002 autoimmune mRNA targets in a single RNA extraction-free panel. The HTG EdgeSeq Autoimmune Panel leverages the sensitivity and dynamic range of next-generation sequencing (NGS) to measure genes implicated in a variety of autoimmune diseases.
- Oncology Biomarker Panel
 - Analysis tool that profiles samples to identify therapeutic targets and drug response markers.
- Precision Immuno-Oncology Panel
 - Designed to measure the immune response both inside the tumor and the surrounding microenvironment. This tool interrogates 1,392 genes from a single section of formalin-fixed, paraffin-embedded (FFPE) tissue, extracted RNA, or PAXgene samples.
- Immuno-Oncology Panel
 - Measures the expression of 549 human RNA transcripts believed to be involved in the innate and adaptive immune response to cancer. The I/O assay enables comprehensive phenotypic analysis of immune infiltrates, assessment of immune activation and regulatory mechanisms, and investigation of key immuno-checkpoints.
- Mouse mRNA Tumor Response Panel

- Measure 1,659 mouse mRNA targets in one RNA extraction-free assay. Enables multiplex profiling from a variety of sample types, including a single section of formalin-fixed, paraffin-embedded (FFPE) tissue, cell lines, and extracted RNA samples.

Sequencing and Pooling Recommendations

Service	Samples per Pool*	Platform	Cycles
HTG (2 million reads per sample)	8	MiSeq	50x
HTG (5 million reads per sample)	48	HiSeq 2500 Rapid Run (full flowcell)	50x
HTG (2.5 million reads per sample)	96	HiSeq 2500 Rapid Run (full flowcell)	50x

*Note: Dependent on the total number of samples that is provided, more efficient pooling plans may be available

Important Notes

- Using HTG requires customization before submitting exosomes to the HTSF. Please contact our Customer Service Team found on our website to receive the best instructions on how to move forward.
- Customers wanting to use HTG, will buy reagent kits directly through the company and drop-shipped to HTSF.
- With every chip, there will be a mandatory brain control. When submitting for an 8 sample chip, 7 samples will be submitted + 1 brain control.
- HTG data is sent to company and they will deliver the final analysis to the customer.