

High-Throughput Gene Expression Screening

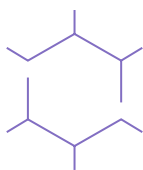
Fast, Unbiased Screening for Drug Discovery

High-throughput gene expression (HT-GEx) screening is a cost-efficient, scalable, cell-to-data approach for rapid drug discovery and analysis. Using well established methods, this assay works directly from lysate, removing the need to purify RNA, and utilizes unbiased 3' transcript tagging. Azenta Life Sciences' end-to-end streamlined workflows for HT-GEx screening includes the best quality lab procedures, fast processing times, and expert consultations to bring you the most value.

Applications



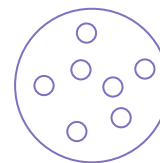
Drug Discovery



Compound Treatment Phenotyping

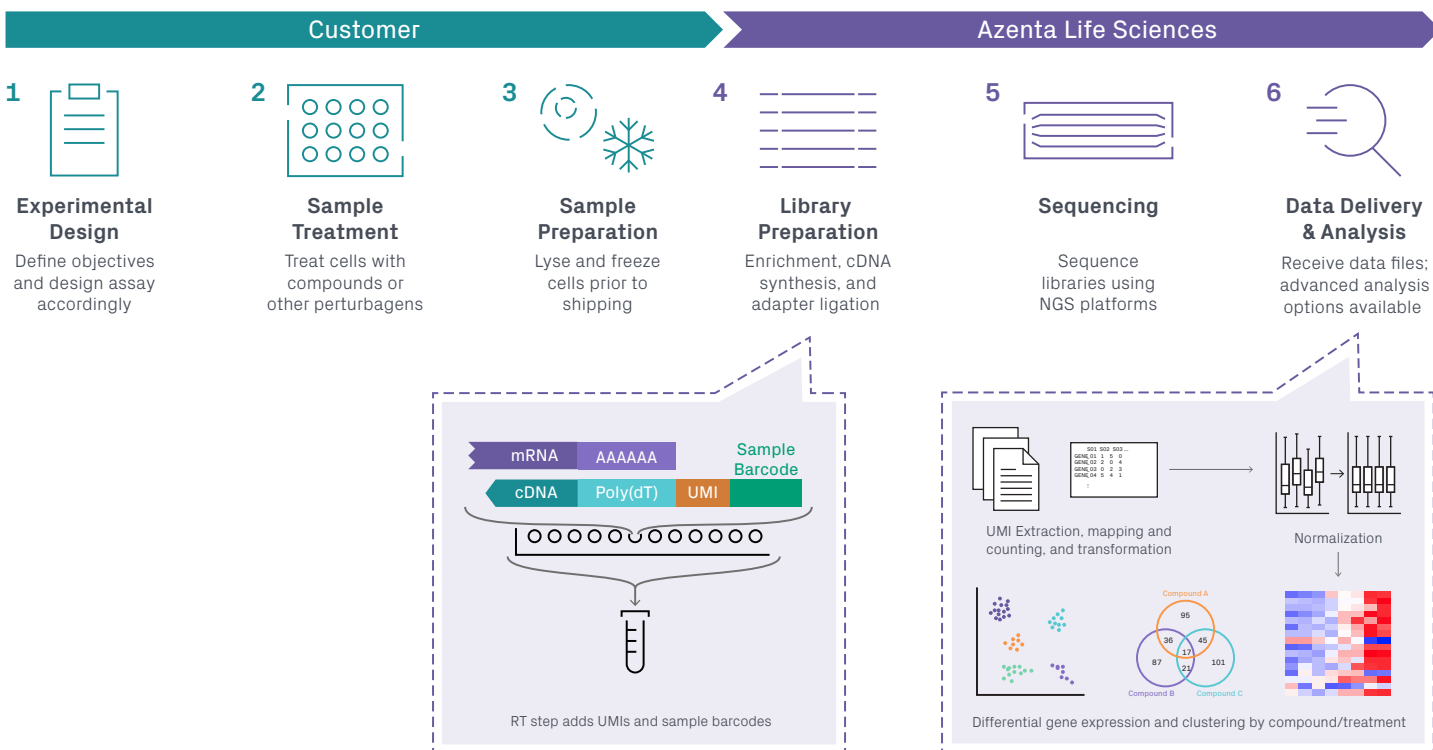


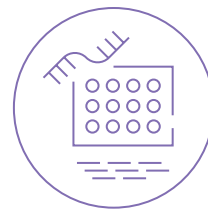
CRISPR Treatment Phenotyping



Cell Response Screening

HT-GEx Screening Workflow





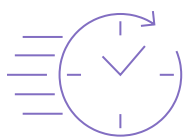
High-Throughput Gene Expression Screening

Technology Comparison

Metric	HT-GEx Screening	mRNA-Seq	Total RNA-Seq	Iso-Seq
Reads/Sample	~1-2M Reads	~10-30M Reads	~20-45M Reads	~1-2M Reads
Min. Sample Size	96/384	1	1	1
Cost	\$	\$\$	\$\$\$	\$\$\$\$
Starting Material	Cell Lysate	>20ng Total RNA	>100ng Total RNA	>1ug Total RNA
Detection Level	3' Tails of Genes	Poly(A) Transcript	All Transcript	Full-Length Poly(A) Transcript
Gene Expression	✓	✓	✓	—
Variant Detection	—	✓	✓	—
Alternative Splicing	—	✓	✓	✓ +
Transcriptome Assembly	—	✓	✓	✓ +

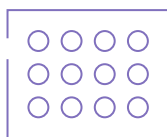
✓ = Suitable method + = Preferred method — = Not a suitable method

Features and Benefits



Fast Turnaround Times

Starting at just 2 weeks for quick target discovery



High-Throughput Capacity

To rapidly scale up pilot or discovery projects



Superior Data Quality

Exceeding manufacturers' benchmarks

- High-throughput, cell-to-data solution for compound screening
- Low-cost, unbiased coverage for use in selection of drug candidates
- Receive detailed expression data for each well across multiple 96- or 384-well plates
- Free technical consultation and customer support from Ph.D.-level project managers and lab scientists

