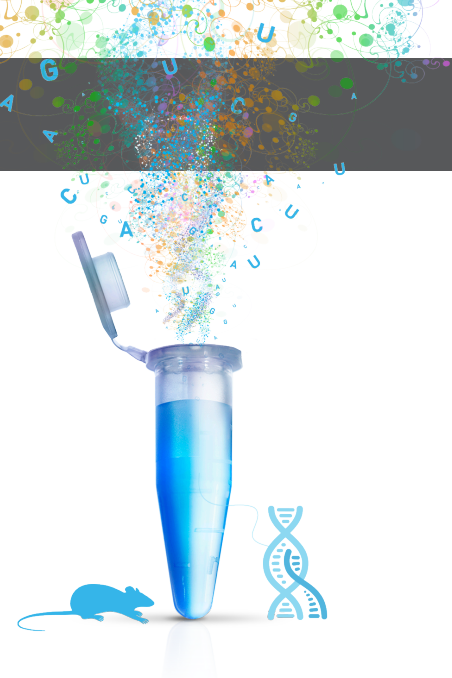


Ion AmpliSeq Transcriptome Mouse Gene Expression Kit

Faster and simpler than whole transcriptome RNA sequencing



Targeted gene-level mouse transcriptome sequencing

Mice are a widely used animal model for human disease research and treatment responses. The Ion AmpliSeq™ Transcriptome Mouse Gene Expression Kit used with the Ion S5™ System enables fast and affordable gene expression analysis from samples that are limited in quantity. With simultaneous amplification of more than 20,000 RefSeq genes in a single tube, starting from as little as 10 ng of total RNA, the Ion AmpliSeq Transcriptome Mouse Gene Expression Kit can be an important tool in oncology and translational research (Figure 1).

Low sample input

Start with as little as 10 ng of total RNA.

Fast gene expression profiling with simple workflow

Go from RNA to data in <2 days with ~45 minutes of total hands-on time with the automated workflow of the Ion S5 and Ion Chef™ Systems.

Streamlined data analysis

Export data with Torrent Suite™ Software into your existing analysis software.

Ion AmpliSeq Transcriptome Mouse Gene Expression Kit

Target representation: >90% representation of mouse RefSeq genes

No. of genes designed: 20,767 well-annotated RefSeq genes + 3,163 XM and XR genes*

Input total of RNA required per sample: 10 ng

Recommended sample multiplexing: 8 samples per Ion 540™ Chip

A	Sample name	Mapped reads	Valid reads	Targets detected**
	MUR #1	11,988,777	99.84%	75.00%
	MUR #2	12,318,386	99.84%	75.12%

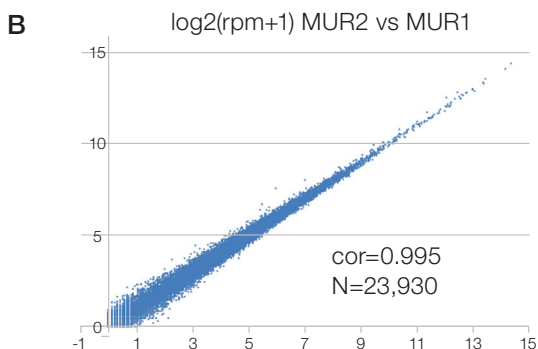


Figure 1. Shown are (A) sequencing metrics for BioChain™ Mouse Universal Reference RNA (MUR) and (B) correlation between two replicate MUR libraries. 10 ng of total RNA was used for sample preparation, and 8 resulting libraries were barcoded and run on a single Ion 540 chip.

* XM and XR are RefSeq coding and noncoding transcripts with provisional annotation.

** XM and XR targets are excluded.

Leveraging the speed and simplicity of Ion AmpliSeq™ technology, this ultrahigh-multiplex PCR enrichment approach enables rapid gene expression profiling with minimal hands-on time. This research method provides a faster, simpler, and lower-cost sequencing method that is highly correlated to whole-transcriptome RNA sequencing (RNA-Seq) (Figure 2).

Flexible and fast gene expression workflow

The simplicity and speed of PCR-based library preparation enable a rapid method for gene expression profiling with a workflow of less than two days from sample to analysis (Figure 3). This includes ~45 minutes of total hands-on time with the automated workflow of the Ion S5 and Ion Chef Systems.

Automated data analysis

Streamlined data analysis with Torrent Suite Software v5.6 or higher provides run metrics on technical reproducibility, read alignment, and detection of on-target transcripts automatically. A list of differentially expressed genes (DEGs) is then easily generated using the Ion AmpliSeq™ RNA plug-in. The resulting data files are compatible with existing analysis tools. The Ion AmpliSeq RNA plug-in has been updated to include .CHP files that can be utilized as input to Applied Biosystems™ Transcriptome Analysis Console (TAC) Software for differential gene expression analysis and visualization.

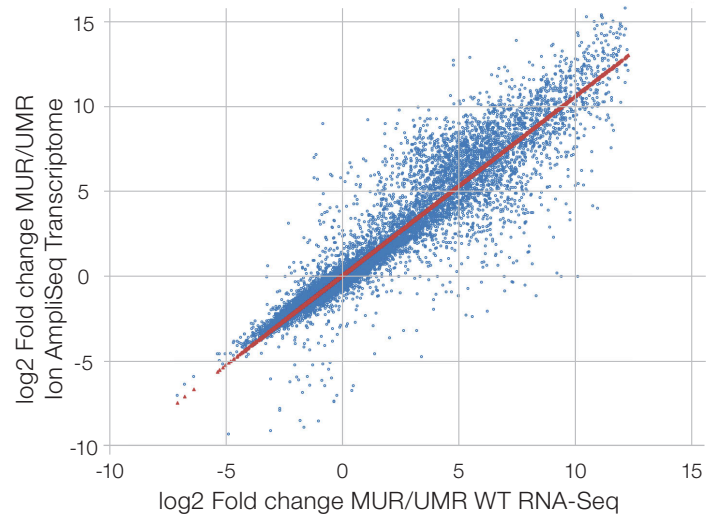


Figure 2. Correlation of DEGs between Ion AmpliSeq Mouse Gene Expression Kit data and whole transcriptome RNA-Seq data equals 0.943.

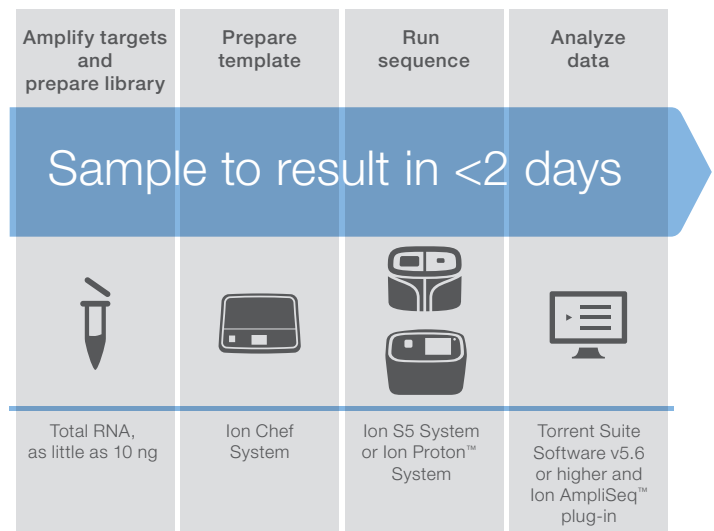


Figure 3. Go from RNA to data in less than two days with the Ion AmpliSeq Transcriptome Mouse Gene Expression Kit.

Ordering information

Product	Quantity	Cat. No.
Ion AmpliSeq Transcriptome Mouse Gene Expression Kit*	24 reactions	A36553
Ion AmpliSeq Transcriptome Mouse Gene Expression Kit*	96 reactions	A36554
Ion AmpliSeq Transcriptome Mouse Gene Expression Kit*	384 reactions	A36555
Ion Xpress Barcode Adapters 1–16 Kit	1 kit	4471250
Invitrogen SuperScript VILO cDNA Synthesis Kit	50 reactions	11754050
Ion AmpliSeq Transcriptome Mouse Gene Expression, Chef-ready Kit**	32 reactions	A36412
Ion AmpliSeq RNA ERCC Companion Panel	24 reactions	A36552

* Includes Ion AmpliSeq™ Transcriptome Mouse Gene Expression Core Panel and Ion AmpliSeq™ Library Plus Kit.

** Includes Ion AmpliSeq™ Transcriptome Mouse Gene Expression Chef-ready Core Panel, and Ion AmpliSeq™ Kit for Chef DL8

Learn about fast and sensitive gene expression analysis at thermofisher.com/ampliseqtranscriptome