

Library Prep Kits Overview

Kit Selection Criteria	CORALL Total RNA-Seq			QuantSeq				LUTHOR 3' mRNA-Seq	Small RNA-Seq	Telo-Prime full-length cDNA
	+ Poly(A)	+ Ribo-Cop	Quant-Seq 3' FWD	Quant-Seq 3' Pool	Quant-Seq 3' REV	Quant-Seq -Flex				
Application										
Expression Profiling	✓	✓	✓	✓*	✓*	✓	✓	✓	✓	✗
Whole Transcriptome (full-transcript coverage)	✓	✓	✓	✗	✗	✗	✗	✗	✗	✓
Alternative Polyadenylation / 3' UTR isoforms	✗	✗	✗	✓	✗	✓*	✓	✓	✗	✓
Isoform discovery & quantification	✓	✓*	✓*	✗	✗	✗	✓	✗	✗	✓
Target-Specific	✗	✗	✗	✗	✗	✗	✓*	✗	✗	✓
RiboSeq (Ribosomal profiling)	✗	✗	✗	✗	✗	✗	✗	✗	✓*	✗
Polysome profiling	✗	✉	✉	✓*	✉	✉	✉	✗	✗	✓
Transcript (re)annotation	✓	✓	✓	✓ 3'UTR only	✓ 3'UTR only	✓ 3'UTR only	✉	✓ 3'UTR only	sRNA only	✓*
de novo assembly	✓	✓	✓	✗	✗	✗	✗	✗	✗	✓*
SLAMseq (Nascent RNA-Seq)	✓	✓	✓	✓*	✓*	✓	✓	✉	✓	✓
Small RNA (e.g., miRNA) analysis	✗	✗	✗	✗	✗	✗	✗	✗	✓*	✗
Long non-coding RNA analysis	✓	✓	✓	✗	✗	✗	✓	✗	✗	✓
rRNA Sequencing	✓*	✗	✗	✗	✗	✗	✓	✗	✗	✗
RNA Input Type										
human or animal cells and protoplasts	✗	✗	✗	✗	✗	✗	✗	✓*	✗	✗
Total RNA	✓	✓*	✓*	✓*	✓*	✓	✓	✓	✓	✓
poly(A)+ RNA (≠ mRNA)	✓*	✗	✉	✓	✓	✉	✉	✉	✗	✓
rRNA-depleted RNA	✓*	✉	✗	✉	✉	✉	✉	✉	✗	✉
Small RNA	✗	✗	✗	✗	✗	✗	✗	✗	✓*	✗
High quality (RIN ≥8)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Moderate quality (RIN 5 - 8)	✓	✗	✓	✓	✓	✓	✓	✓	✓	✗
FFPE / highly degraded (RIN <5; DV200 <50%)	✓ ^M	✗	✓ ^M	✓ ^M	✉	✓ ^M	✓ ^M	✗	✓	✗
Low Input < 100 pg	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗
Organism										
Human, mouse, rat	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Other animals	✓	✓	✉	✓	✓	✓	✓	✓	✓	✓
Plant	✓	✓	✗	✓	✓	✓	✓	✓	✉	✓
Yeast	✓	✓	✗	✓	✓	✓	✓	✓	✉	✓
Bacteria	✓	✗	✓	✓ ^{pA}	✗	✓ ^{pA}	✓	✗	✓	✉
Virus	✓	✓ ^{pA}	✉	✓ ^{pA}	✓ ^{pA}	✓ ^{pA}	✓	✓ ^{pA}	✉	✓ ^{pA}
Sample Type (other sample types will also be compatible for most kits, please contact support@lexogen.com for further information)										
Tissues, cell lines, primary or sorted cells etc.	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Blood	✓	✓	✓	✓*	✓	✓*	✓	✓	✓	✉
Liquid biopsy (CSF, serum, plasma, urine)	✉	✗	✉	✓ ^M	✓	✉	✓	✓	✓*	✗
Exosomes	✉	✉	✉	✉	✉	✉	✉	✓	✓*	✗
Recommended / compatible sequencing platforms / formats										
Illumina	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ion Torrent	✗	✗	✗	✓	✗	✗	✗	✗	✗	✉
Oxford Nanopore	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓ ^M
Pacific Biosciences	✗	✗	✗	✗	✗	✗	✗	✗	✗	✓ ^M
Single-read	✓	✓	✓	✓	✗	✓	✓	✓	✓	✓
Paired-end	✓	✓	✓	✗	✓	✓	✓	✗	✗	✓
Additional Options										
Dual indexing compatible	✓	✓	✓	✓	✓	✓	✓	✓	✉	✗
Automation-Compatible	✓	✓	✓	✓	✉	✓	✓	✉	✗	✗
UMIs available	included	included	included	✓	included	✗	✓	✗	✗	✉
Data Analysis pipeline available	✓	✓	✓	included	✓	included	✉	✓	✓	✓
Service available	✓	✓	✓	✓	✓	✓	✉	✓	✓	✗
Spike-In control recommendation	SIRV-Set 1/2/3			SIRV-Set 3			✗	SIRV-Set 3	✗	SIRV-Set 1/2/3/4 ✉

✓* Optimal Choice

✓ Yes

✉ Possible, but not evaluated. For more information please contact support@lexogen.com.

✓^{pA} Possible only if a poly(A) tail (and a 5' cap for TeloPrime) is present or with prior poly-adenylation

✓^M Protocol modifications apply

✗ Not possible or not useful

Lexogen Library Prep Kits Overview

Lexogen is a biotech company providing innovative solutions for Next Generation Sequencing (NGS). The main focus is the development of RNA sequencing technologies which are also applied in the in-house service facility. Lexogen delivers convenient and robust library preparation solutions for diverse NGS applications including: LUTHOR for ultra-low input RNA and single-cell sequencing, QuantSeq and QuantSeq-Pool for differential and high-throughput gene expression profiling and 3' UTR analysis, and CORALL for whole transcriptome total RNA-Seq and mRNA-Seq.

Low Input and Single-cell Sequencing

LUTHOR 3' mRNA-Seq

- The first comprehensive 3' single-cell RNA-Seq
- Proprietary THOR Technology for direct RNA amplification
- Unprecedented sensitivity
- Empower challenging samples
- Input: 1- 100 cells or ~10 pg - 1 ng of total RNA
- 12 nt Unique Dual Indices (UDIs) available



High-throughput Expression Profiling

QuantSeq-Pool Sample-Barcoded 3' mRNA-Seq

- Cost-efficient gene expression analysis method for screening projects
- Early pooling and batch processing save time effortlessly
- Easily scalable from a few to 36,864 samples
- Unique Molecular Identifiers (UMIs) included
- 12 nt UDIs available



Whole Transcriptome Sequencing

CORALL Total RNA-Seq and CORALL mRNA-Seq

- Available with Lexogen's RiboCop rRNA Depletion Kit for total RNA-Seq and with Lexogen's Poly(A) RNA Selection Kit for mRNA-Seq.
- Ready-to-sequence libraries within 4.5 hours
- UMIs seamlessly included
- 1 ng to 1 µg of total RNA input incl. from low-quality RNA and FFPE samples
- Easy all-in-one protocol
- 12 nt UDIs available



Differential Gene Expression

QuantSeq 3' mRNA-Seq

- For gene expression and 3' UTR analyses
- ≥100 pg of total RNA input incl. from low-quality RNA and FFPE samples
- Ready-to-sequence libraries in 4.5 hours
- QuantSeq FWD, REV, or Flex kits for individual needs
- Globin depletion, UMIs, and 12 nt UDIs are available
- Widely validated protocol in more than 700 customer publications



Services available for all Lexogen RNA-Seq library prep protocols.