

# Library Prep Kits Overview

Kit Selection Criteria	CORALL Total RNA-Seq			SENSE mRNA	QuantSeq			Small RNA-Seq	TeloPrime full-length cDNA	
		+ Poly(A)	+ RiboCop		QuantSeq 3' FWD	QuantSeq 3' REV	QuantSeq -Flex			
<b>Application</b>										
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	✉	✓ sRNA only	✓*	
de novo assembly	✓	✓	✓	✓	✗	✗	✗	✗	✓*	
SLAMseq (Nascent RNA-Seq)	✓	✓	✓	✓	✓*	✓	✓	✓	✓	
Small RNA (e.g., miRNA) analysis	✗	✗	✗	✗	✗	✗	✗	✓*	✗	
Long non-coding RNA analysis	✓	✓	✓	✓	✗	✗	✓	✗	✓	
rRNA Sequencing	✓*	✗	✗	✗	✗	✗	✓	✗	✗	
<b>RNA Input Type</b>										
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%)	✓ <sup>M</sup>	✗	✓ <sup>M</sup>	✗	✓ <sup>M</sup>	✓ <sup>M</sup>	✓ <sup>M</sup>	✓	✗	
<b>Organism</b>										
Human, mouse, rat	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Other animals	✓	✓	✉	✓	✓	✓	✓	✓	✓	
Plant	✓	✓	✗	✓	✓	✓	✓	✉	✓	
Yeast	✓	✓	✗	✓	✓	✓	✓	✉	✓	
Bacteria	✓	✗	✓	✗	✓ <sup>pA</sup>	✓ <sup>pA</sup>	✓	✓	✉	
Virus	✓	✓ <sup>pA</sup>	✉	✓ <sup>pA</sup>	✓ <sup>pA</sup>	✓ <sup>pA</sup>	✓	✉	✓ <sup>pA</sup>	
<b>Sample Type</b> (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)	✉	✗	✉	✗	✓ <sup>M</sup>	✉	✓	✓*	✗	
Exosomes	✉	✉	✉	✉	✉	✉	✉	✓*	✗	
<b>Recommended / compatible sequencing platforms / formats</b>										
Illumina	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Ion Torrent	✗	✗	✗	✓	✓	✗	✗	✗	✉	
Oxford Nanopore	✗	✗	✗	✗	✗	✗	✗	✗	✓ <sup>M</sup>	
Pacific Biosciences	✗	✗	✗	✗	✗	✗	✗	✗	✓ <sup>M</sup>	
Single-read	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Paired-end	✓	✓	✓	✓	✗	✓	✓	✗	✓	
<b>Additional Options</b>										
Dual indexing compatible	✓	✓	✓	✓	✓	✓	✓	✉	✗	
Automation-Compatible	✓	✓	✓	✓	✓	✓	✓	✗	✗	
UMIs available	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 1/2/3 ✉

✓\* Optimal Choice

✓ Yes

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

✓<sup>pA</sup> Possible only if a poly(A) tail (and a 5' cap for TeloPrime) is present or with prior poly-adenylation

✓<sup>M</sup> 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 trustworthy library preparation solutions for diverse NGS applications including: CORALL for whole transcriptome studies, QuantSeq for gene expression analyses, small RNA-Seq library preparations, and TeloPrime for long read NGS analyses on PacBio™ or Oxford Nanopore™ platforms.

### Whole Transcriptome Sequencing

#### CORALL Total RNA-Seq Library Prep Kit

- Complete transcript coverage with unprecedented representation of the 5' ends
- Ready-to-sequence libraries within 4.5 hours
- Unique Molecular Identifiers (UMIs) seamlessly included
- 1 ng to 1 µg of total RNA input incl. from low-quality RNA and FFPE samples
- Cost-efficient all-in-one protocol



### Differential Gene Expression

#### QuantSeq 3' mRNA-Seq Library Prep Kits

- 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, Unique Molecular Identifiers (UMIs), and Unique Dual Indexing (UDI) available



### Small RNA Sequencing

#### Small RNA-Seq Library Prep Kit

- Optimized for total RNA, low small RNA-enriched content, and liquid biopsy samples
- Ready to sequence libraries in less than 5 hours
- Wide input range (50 pg – 1 µg)
- Includes up to 96 barcodes for high throughput multiplexing



### Long Read NGS

#### TeloPrime Full-Length cDNA Amplification Kit V2

- Full-length cDNA generation with high yield
- Exceptional 5' cap and poly(A) tail specificity
- Ideal for long-read NGS library generation (e.g. PacBio™ and Oxford Nanopore™)
- 1 ng – 2 µg total of RNA input
- Flexible protocol enables use of custom primers for reverse transcription



Services available for CORALL, QuantSeq, and Small RNA-Seq.