NGS Library Preparation Kit

High-throughput sequencing, also known as next-generation sequencing (NGS), is characterized by the ability to sequence millions of DNA molecules simultaneously.



ABclonal Technology introduces mRNA library preparation kits and PCR-free DNA library preparation kits that embrace the revolutionary technology.

StepWise DNA Lib Prep Kit

DNA library can be constructed using as little as 500 pg of input DNA. PCR-free libraries can be constructed from 100 ng of high-quality fragmented genomic DNA or 10 ng of circulating cell-free DNA (cfDNA).

Rapid DNA Lib Prep Kit

This kit allows DNA library preparation protocols to be completed in 2 hours by combining end repair and dA preparation steps. PCR-free libraries can be constructed from 100 ng of high-quality fragmented genomic DNA or 10 ng of circulating cfDNA.

ABclonal mRNA-seq Lib Prep Kit

The kit allows mRNA-seq library preparation using 10-1000 ng of input total RNA from a wide variety of eukaryotic species, including animals, plants, and fungi.

Stranded mRNA-seq Lib Prep Kit

First-strand cDNA specificity is enhanced by Actinomycin D included in the kit. Replacing dTTP with dUTP during second-strand synthesis guarantees first-strand cDNA specificity and enables second-strand degradation before PCR amplification.

Highlights

◆/Ease-of-use/◆

All enzymes, nucleotides, and buffers included have the desired concentration and volume. Premixed components minimize number of pipetting operations required.

Compatibility | •

All kits are compatible with Illumina® sequencing platforms.

■ DNA Library Preparation → DNA Fragmentation → End Repair Library Amplification ← Adapter Ligation ← dA Preparation ■ mRNA Library Preparation ← First Strand cDNA Synthesis ← Second Strand cDNA Synthesis PCR Amplification ← Adapter Ligation ← End Preparation

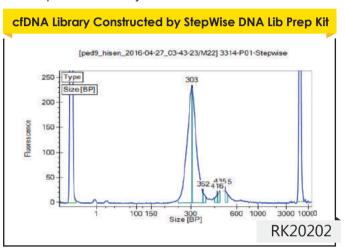


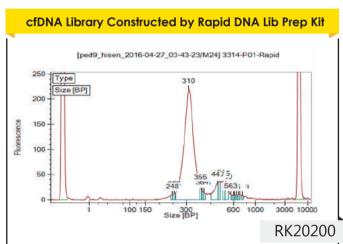
DNA Library Preparation Kits



Test Results Using cfDNA and FFPE DNA Samples					
ID	DNA Type	Sample Name (Includes Repeated Trials)	DNA Input (ng)	StepWise DNA Lib Prep Kit Yield (ng)	Rapid DNA Lib Prep Kit Yield (ng)
1	cfDNA	7359P01-1	30.0	1590	1359
2	cfDNA	7359P01-2	45.0	1710	1533
3	FFPE DNA	7450W01-1	200.0	1668	1671
4	FFPE DNA	7450S01-1	200.0	1320	1128

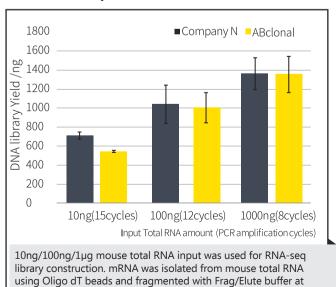
^{* 32} cfDNA and FFPE DNA samples were used to construct DNA libraries for DNA target capture sequencing. PCR amplification: 7X cycles.



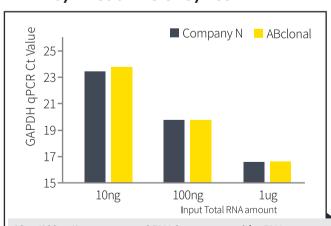


mRNA Library Preparation Kits

DNA Library Yield Test



DNA Synthesis Efficiency Test



 $10 ng/100 ng/1\mu g$ mouse total RNA input was used for RNA-seq library construction. mRNA was isolated from mouse total RNA using Oligo dT beads and fragmented with Frag/Elute buffer at $94^{\circ} C$ for 15 minutes. After second strand synthesis, double strand cDNA was diluted by 100-fold. Ct value of GAPDH gene was determined using qPCR.



94°C for 15 minutes.