

High-Sensitivity DNA Library Preparation Kit (For Illumina®) ab185905

[1 References](#) [1 Image](#)

Overview

Product name	High-Sensitivity DNA Library Preparation Kit (For Illumina®)
Assay time	1h 30m
Product overview	High Sensitivity DNA Library Preparation Kit (ab185905) is a complete set of optimized reagents to prepare a DNA library from very small amount of samples for use in next-generation sequencing applications. This kit is suitable for preparing a DNA library using sub-nanogram amounts of DNA input for next generation sequencing applications using an Illumina sequencer. These applications include genomic DNA-seq, ChIP-seq, MeDIP/hMeDIP-seq, traditional bisulfite-seq, and targeted re-sequencing. The optimized protocol and components of the kit allow both non-barcoded (singleplexed) and barcoded (multiplexed) DNA libraries to be constructed quickly with reduced bias.

Starting Materials

Starting materials can include fragmented dsDNA isolated from various tissue or cell samples, dsDNA enriched from a ChIP reaction, MeDIP/hMeDIP reaction, or exon capture. DNA should be relatively free of RNA because large fractions of RNA will impair end repair and dA-tailing, resulting in reduced ligation capabilities. The input amount of DNA can be from 0.2 ng to 100 ng. For optimal preparation, the input amount should be 10 ng to 50 ng.

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Notes	DNA library preparation is a critical step for next generation sequencing (NGS). To generate accurate sequencing data in NGS, the prepared library DNA should be sufficient in yield and of high quality. As NGS technology is continuously improving, DNA library preparation is required to be optimized accordingly. Most of the currently used methods are time-consuming, expensive, inconvenient, and specifically need large amounts of DNA. These factors result in a DNA library preparation which cannot be used for biological samples with limited amounts of starting material such as tumor biopsy, early embryos, and embryonic tissues and circulating DNA. In addition, the amount of DNA enriched by ChIP or MeDIP/hmeDIP is often at low or sub-nanogram levels which causes insufficient DNA library yields. To address this issue, Abcam offers ab185905, the High-Sensitive DNA Library Preparation Kit (For Illumina®).
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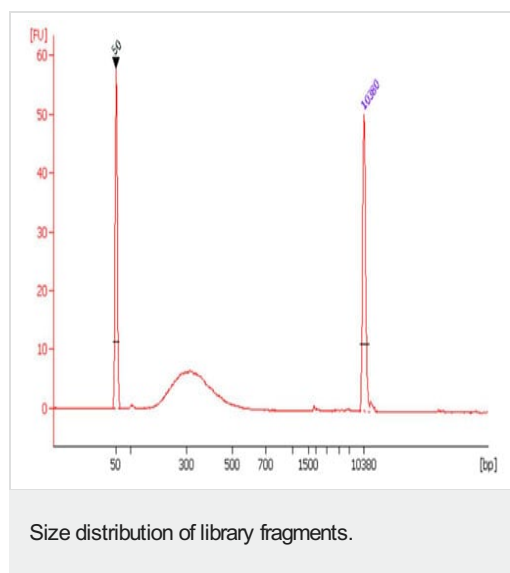
Properties

Storage instructions

Store at -20°C. Please refer to protocols.

Components	12 tests	24 tests
10X End Polishing Buffer	1 x 30µl	1 x 60µl
2X HiFi PCR Master Mix	1 x 160µl	1 x 320µl
2X Ligation Buffer	1 x 250µl	1 x 500µl
Adaptors (50 µM)	1 x 15µl	1 x 30µl
Elution Buffer	1 x 1ml	1 x 2ml
End Polishing Enhancer	1 x 13µl	1 x 26µl
End Polishing Enzyme Mix	1 x 13µl	1 x 26µl
MQ Binding Beads	1 x 1.6ml	1 x 3.2ml
Primer I (10 µM)	1 x 15µl	1 x 30µl
Primer U (10 µM)	1 x 15µl	1 x 30µl
T4 DNA Ligase	1 x 15µl	1 x 30µl

Images



Human placenta DNA was sheared to around 300 bps in peak size and 0.2 ng of DNA was used for DNA library preparation using High Sensitivity DNA Library Preparation Kit (ab185905).

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