

# DNA Library Preparation Kit (For Illumina®) ab185903

## 1 图像

### 概述

产品名称	DNA Library准备试剂盒(For Illumina®)
样品类型	DNA
检测时间	2h 30m
产品概述	The DNA Library Preparation Kit (For Illumina®) (ab185903) is a complete set of optimized reagents to carry out a successful DNA library preparation. The kit is suitable for preparing a DNA library for next generation sequencing applications using an Illumina sequencer, which includes genomic DNA-seq, ChIP-seq, MeDIP/hMeDIP-seq, 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 ChIP reactions, MeDIP/hMeDIP reaction, or exon capture. DNA should be relatively free of RNA since large fractions of RNA will impair end repair and dA tailing, resulting in reduced ligation capabilities. Input amount of DNA can be from 5 ng to 1 µg. For optimal preparation, the input amount should be 100 ng to 200 ng. For amplification-free, 500 ng or more is needed.

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### 说明

DNA library preparation is a critical step for next generation sequencing (NGS). To generate accurate sequencing data for NGS, the prepared library DNA should be sufficient in yield and of high quality. Also, as NGS technology is continuously improving, DNA library preparation is required to be optimized accordingly. Most of the currently used methods are unfortunately time-consuming, expensive, and inconvenient. Some of the methods are relatively quick by combining end repair and dA tailing or even ligation in one-step, but have been shown to generate significant G tailing or form concatmers at the ligation step or have high insertion bias. These side reactions eventually result in the prepared DNA library being less efficient and inaccurate. An ideal DNA library preparation method should be balanced in speed, convenience, small sample-suitability, cost-effectiveness, and accuracy.

### 经测试应用

适用于: ChIP-sequencing

### 性能

## 存放说明

Please refer to protocols.

组件	12 tests	24 tests
10X dA-Tailing Buffer	1 x 40µl	1 x 80µl
10X End Repair Buffer	1 x 40µl	1 x 80µl
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 Repair Enzyme Mix	1 x 25µl	1 x 50µl
Klenow Fragment (3'-5' exo-)	1 x 15µl	1 x 30µl
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

## 应用

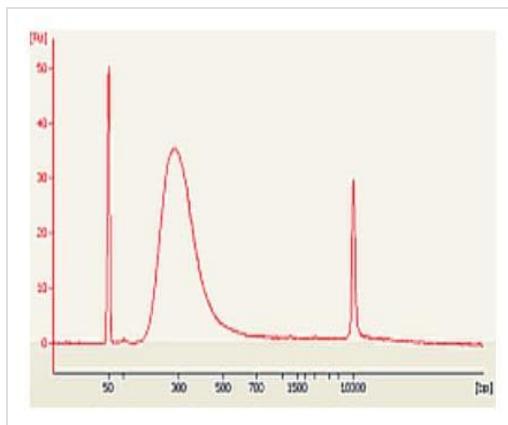
### The Abpromise guarantee

**Abpromise™** 承诺保证使用ab185903于以下的经测试应用

“应用说明”部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
ChIP-sequencing		Use at an assay dependent concentration.

## 图片



Size distribution of library fragments

Human placenta DNA was sheared to 210 bps peak size and 20 ng of sheared DNA was used for DNA library preparation.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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