# abcam

### Product datasheet

# Post-Bisulfite DNA Library Preparation Kit (For Illumina®) ab185906

1 References 1 Image

Overview

**Notes** 

Product name Post-Bisulfite DNA Library Preparation Kit (For Illumina®)

Sensitivity 1 ng

**Range** 0.5 ng - 1000 ng

Assay time 5h 00m

Product overview ab185906 is a complete set of optimized reagents to prepare a DNA library - after successful

bisulfite conversion - for various Illumina® platform-based bisulfite sequencing (bisulfite-seq) assays, such as whole genome bisulfite sequencing (WGBS), oxidative bisulfite sequencing (oxBs-seq), reduced representative bisulfite sequencing (RRBS), and other bisulfite-based next generation sequencing applications. The optimized protocol and components of the kit allow both non-barcoded (singleplexed) and barcoded (multiplexed) DNA libraries to be quickly constructed using sub-nanogram input concentrations of DNA since the DNA is first bisulfite-converted and

then used for library preparation.

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Several methods, including whole genome bisulfite sequencing (WGBS) and reduced representation bisulfite sequencing (RRBS), are currently used for genome-wide DNA methlyation analysis. These methods convert unmethylated cytosines to uracil while 5-methylcytosines remain unchanged by the bisulfite treatment. This allows epigenetic differences to become genetic differences, which can be subsequently detected via sequencing at the single-based resolution level and on a genome-wide scale. However, practical use with such current methods are not ideal as they (1) need large amounts of DNA (>1 µg) as input material, which is difficult to prepare from limited biological samples such as tumor biopsy, early embyros, embyronic tissues, and circulating DNA; (2) require DNA to first be sheared and then ligated to adapters, followed by bisulfite conversion (post-ligation bisulfite conversion), which causes substantial amounts of DNA fragments contained in the adapter-DNA fragment constructs to be broken and thereby forms mono-tagged templates that become removed during library enrichment; and (3) are time-consuming (2 days). The Post-Bisulfite DNA Library Preparation Kit (For Illumina®) is designed to overcome these weaknesses.

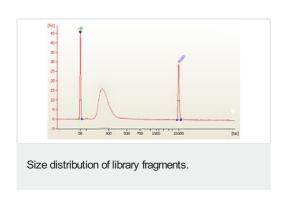
### **Properties**

### Storage instructions

Please refer to protocols.

Components	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
5X Conversion Buffer	1 x 50µl	1 x 100µl
Adaptors (50 μM)	1 x 15µl	1 x 30µl
Conversion Enzyme Mix	1 x 15µl	1 x 30µl
Conversion Primer	1 x 26µl	1 x 52µl
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 1.8ml	1 x 3.6ml
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**



Size distribution of library fragments as demonstrated by a post-bisulfite DNA library constructed using ab185906 Post-Bisulfite DNA Library Preparation Kit (For Illumina®) from 10 ng of input DNA.

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