VAHTS DNA Clean Beads

Catalog # N411

Version 5.2

Vazyme biotech co., ltd.

Introduction

The Vazyme **VAHTS DNA Clean Beads** is based on SPRI (Solid Phase Reverse Immobilization) and is applicable for DNA purification and fragment size selection during the preparation of next generation sequencing (NGS) library. **VAHTS DNA Clean Beads** is compatible with almost all DNA/RNA library construction protocols currently provided by manufacturers or published in academic journals.

The usage of **VAHTS DNA Clean Beads** is the same as the AMPure® XP Beads (Beckman, Cat.No. #A63881), which is widely used in NGS library preparation. The yield and size distribution of the libraries prepared with **VAHTS DNA Clean Beads** are highly consistent with those with AMPure® XP Beads. The cost-effective **VAHTS DNA Clean Beads** serves as a seamless alternative for the AMPure® XP Beads.

Contents of Kit

	N411-01	N411-02	N411-03
VAHTS DNA Clean Beads	5 ml	60 ml	450 ml

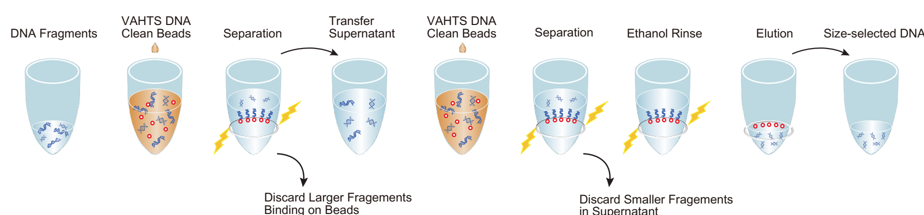
Storage

All the components can be stored at 2-8℃ for one year.

Application

Special for DNA or RNA library preparation for NGS.

Workflow of DNA Purification and Size Selection



Protocol

1. Usage

VAHTS DNA Clean Beads is compatible with amlost all brands of kits for library construction and protocol reported in paper. The usage of **VAHTS DNA Clean Beads** is the same as the AMPure® XP Beads (Beckman, Cat.No. #A63881) with no need to make any changes. So far, it has been verified that the yield and size distribution of the libraries prepared with **VAHTS DNA Clean Beads** are highly consistent with those with AMPure® XP Beads using the following library prep kits. Therefore, the **VAHTS DNA Clean Beads** serves as a seamless alternative for the AMPure® XP Beads.

	Vazyme	Illumina	NEB
DNA Library	VAHTS Universal, TruePrep	Truseq®	NEBNext® Ultra
		Nextera®	NEBNext® Ultra II
RNA Library	VAHTS mRNA-seq V2/ VAHTS Stranded mRNA-seq	Truseq® V2	NEBNext® Ultra
	/ VAHTS Total RNA-seq	Truseq® Stranded	

2. Notes Before Use

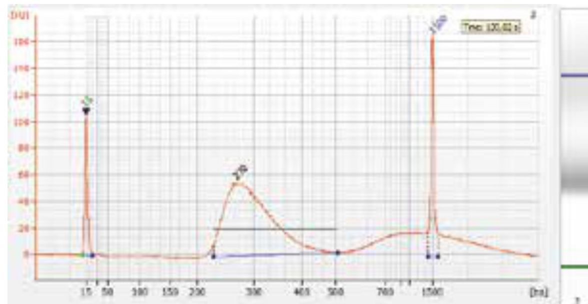
Equilibrate the **VAHTS DNA Clean Beads** to room temperature before use.
Mix the beads thoroughly by vortexing every time before pipetting.

3. Notes on Ethanol Rinse

When rinsing the beads with 80% ethanol, keep the tube static on the magnetic stand, and do not disturb the bead.
When air-drying the beads, do not over-dry it. Over-dried beads with cracks on the surface will lead to reduced elution efficiency of DNA.

4. The Effect of Residual Beads on Library Distribution

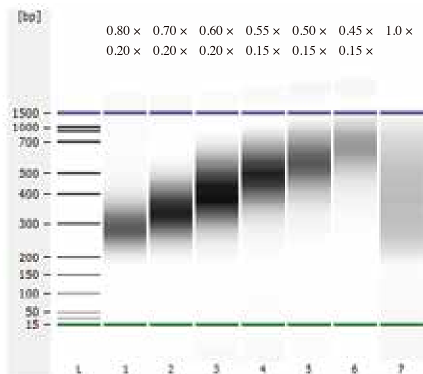
When the library is analyzed with an Agilent 2100 Bioanalyzer, the peak may come with a tail on the higher molecular weight side (as shown in the following figure), usually caused by the residual beads in purified PCR products. To avoid this, it is recommended to use a magnetic stand with stronger magnetic force and carefully discard the supernatant without disturbing the beads.

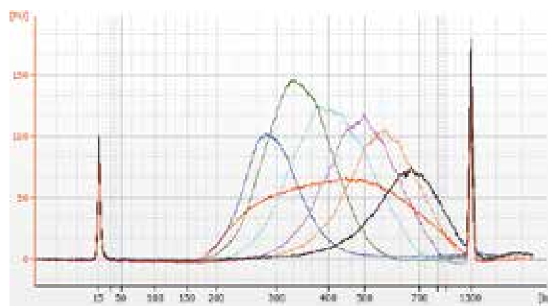


5. Reference Conditions for Library Selection

The DNA library with full size of 200 bp-1500 bp was prepared using TruePrep DNA Library Prep Kit V2 for Illumina® (Vazyme, Cat.No. #TD501) and purified with 1× **VAHTS DNA Clean Beads**. Then, using **VAHTS DNA Clean Beads** again, the library was sorted into different sizes according to the following conditions. Finally, all the libraries were analyzed with an Agilent 2100 Bioanalyzer.

Ratio of Beads: DNA for the 1st Round	0.80 ×	0.70 ×	0.60 ×	0.55 ×	0.50 ×	0.45 ×
Ratio of Beads: DNA for the 2nd Round	0.20 ×	0.20 ×	0.20 ×	0.15 ×	0.15 ×	0.15 ×
Average Full Length of the Library (bp)	300	350	400	500	600	700





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