VAHTS Maxi Unique Dual Index DNA Adapters Set 1 for Illumina

N34201

Vazyme

Instruction for Use

Version 22.1

Vazyme

Contents

01/Product Description

VAHTS Maxi Unique Dual Index DNA Adapters Set 1 for Illumina is a dedicated kit for multi-sample DNA library preparation for sequencing using Illumina high-throughput sequencing platforms. The kit contains 96 kinds of VAHTS Unique Dual Index (UDI) DNA Adapters, which enables dual verification through two completely independent indexes and minimizes index hopping and misassignment, thus ensuring that the reads in the final analysis represent the samples to the maximum extent.

All the Adapters provided in the kit have undergone rigorous quality control and functional testing to ensure the optimal stability and repeatability of library preparation.

02/Components

Components	N34201-01 (384 rxns)
VAHTS Maxi Unique Dual Index DNA Adapter for Illumina (UDIA 001 - UDIA 096)	20 μl each

03/Storage

Store at -30 ~ -15℃ and transport at ≤0℃.

04/Applications

VAHTS Maxi Unique Dual Index DNA Adapters Set 1 for Illumina is a dedicated kit for Vazyme ND series library preparation kit. It is compatible with various template type: genomic DNA, cfDNA, ctDNA and FFPE DNA. It is suitable for multi-sample Dual indexed DNA library preparation and can effectively prevent crosstalk between samples.

05/Notes

For research use only. Not for use in diagnostic procedures.

1. The use amount of DNA Adapter depends on the Input DNA amount. Refer to Appendix for specific concentration.
2. Please do not premix Adapter, Ligation Buffer and Ligase, or it may result in Adapter self-ligation.
3. Please do not keep this product at room temperature, or the ligation efficiency may decrease.

06/Library Structure and Sequences

The structure of a DNA library prepared by using VAHTS Maxi Unique Dual Index DNA Adapters for Illumina is as follows:

5' - **DNA Adapter X** - Insert DNA Sequence - **DNA Adapter X** - 3'

Index sequences are as follows:

	Adapter name	i5 index (HiSeq 2000/2500, MiSeq, NovaSeq v1.0)	i5 index (HiSeq 3000/4000, NextSeq, MiniSeq, NovaSeq v1.5)	i7 index (all Illumina systems)
	UDIA-001	ATATGCGC	GCGCATAT	CTGATCGT
	UDIA-002	TGGTACAG	CTGTACCA	ACTCTCGA
	UDIA-003	AACCGTTC	GAACGGTT	TGAGCTAG
	UDIA-004	TAACCGGT	ACCGGTTA	GAGACGAT
	UDIA-005	GAACATCG	CGATGTTC	CTTGTCGA
	UDIA-006	CCTTGTAG	CTACAAGG	TTCCAAGG
	UDIA-007	TCAGGCTT	AAGCCTGA	CGCATGAT
	UDIA-008	GTTCTCGT	ACGAGAAC	ACGGAACA
	UDIA-009	AGAACGAG	CTCGTTCT	CGGCTAAT
	UDIA-010	TGCTTCCA	TGGAAGCA	ATCGATCG
	UDIA-011	CTTCGACT	AGTCGAAG	GCAAGATC
	UDIA-012	CACCTGTT	AACAGGTG	GCTATCCT
	UDIA-013	ATCACACG	CGTGTGAT	TACGCTAC
	UDIA-014	CCGTAAGA	TCTTACGG	TGGACTCT
	UDIA-015	TACGCCTT	AAGGCGTA	AGAGTAGC
	UDIA-016	CGACGTTA	TAACGTCG	ATCCAGAG
	UDIA-017	ATGCACGA	TCGTGCAT	GACGATCT
	UDIA-018	CCTGATTG	CAATCAGG	AACTGAGC
	UDIA-019	GTAGGAGT	ACTCCTAC	CTTAGGAC
	UDIA-020	ACTAGGAG	CTCCTAGT	GTGCCATA
	UDIA-021	CACTAGCT	AGCTAGTG	GAATCCGA
N34201	UDIA-022	ACGACTTG	CAAGTCGT	TCGCTGTT
	UDIA-023	CGTGTGTA	TACACACG	TTCGTTGG
	UDIA-024	GTTGACCT	AGGTCAAC	AAGCACTG
	UDIA-025	ACTCCATC	GATGGAGT	CCTTGATC
	UDIA-026	CAATGTGG	CCACATTG	GTCGAAGA
	UDIA-027	TTGCAGAC	GTCTGCAA	ACCACGAT
	UDIA-028	CAGTCCAA	TTGGACTG	GATTACCG
	UDIA-029	ACGTTCAG	CTGAACGT	GCACAACT
	UDIA-030	AACGTCTG	CAGACGTT	GCGTCATT
	UDIA-031	TATCGGTC	GACCGATA	ATCCGGTA
	UDIA-032	CGCTCTAT	ATAGAGCG	CGTTGCAA
	UDIA-033	GATTGCTC	GAGCAATC	GTGAAGTG
	UDIA-034	GATGTGTG	CACACATC	CATGGCTA
	UDIA-035	CGCAATCT	AGATTGCG	ATGCCTGT
	UDIA-036	TGGTAGCT	AGCTACCA	CAACACCT
	UDIA-037	GATAGGCT	AGCCTATC	TGTGACTG
	UDIA-038	AGTGGATC	GATCCACT	GTCATCGA
	UDIA-039	TTGGACGT	ACGTCCAA	AGCACTTC
	UDIA-040	ATGACGTC	GACGTCAT	GAAGGAAG
	UDIA-041	GAAGTTGG	CCAACTTC	GTTGTTCG
	UDIA-042	CATACCAC	GTGGTATG	CGGTTGTT
	UDIA-043	CTGTTGAC	GTCAACAG	ACTGAGGT
	UDIA-044	TGGCATGT	ACATGCCA	TGAAGACG

UDIA-045	ATCGCCAT	ATGGCGAT	GTTACGCA
UDIA-046	TTGCGAAG	CTTCGCAA	AGCGTGTT
UDIA-047	AGTTCGTC	GACGAACT	GATCGAGT
UDIA-048	GAGCAGTA	TACTGCTC	ACAGCTCA
UDIA-049	ACAGCTCA	TGAGCTGT	GAGCAGTA
UDIA-050	GATCGAGT	ACTCGATC	AGTTCGTC
UDIA-051	AGCGTGTT	AACACGCT	TTGCGAAG
UDIA-052	GTTACGCA	TGCGTAAC	ATCGCCAT
UDIA-053	TGAAGACG	CGTCTTCA	TGGCATGT
UDIA-054	ACTGAGGT	ACCTCAGT	CTGTTGAC
UDIA-055	CGGTTGTT	AACAACCG	CATACCAC
UDIA-056	GTTGTTCG	CGAACAAC	GAAGTTGG
UDIA-057	GAAGGAAG	CTTCCTTC	ATGACGTC
UDIA-058	AGCACTTC	GAAGTGCT	TTGGACGT
UDIA-059	GTCATCGA	TCGATGAC	AGTGGATC
UDIA-060	TGTGACTG	CAGTCACA	GATAGGCT
UDIA-061	CAACACCT	AGGTGTTG	TGGTAGCT
UDIA-062	ATGCCTGT	ACAGGCAT	CGCAATCT
UDIA-063	CATGGCTA	TAGCCATG	GATGTGTG
UDIA-064	GTGAAGTG	CACTTCAC	GATTGCTC
UDIA-065	CGTTGCAA	TTGCAACG	CGCTCTAT
UDIA-066	ATCCGGTA	TACCGGAT	TATCGGTC
UDIA-067	GCGTCATT	AATGACGC	AACGTCTG
UDIA-068	GCACAACT	AGTTGTGC	ACGTTCAG
UDIA-069	GATTACCG	CGGTAATC	CAGTCCAA
UDIA-070	ACCACGAT	ATCGTGGT	TTGCAGAC
UDIA-071	GTCGAAGA	TCTTCGAC	CAATGTGG
UDIA-072	CCTTGATC	GATCAAGG	ACTCCATC
UDIA-073	AAGCACTG	CAGTGCTT	GTTGACCT
UDIA-074	TTCGTTGG	CCAACGAA	CGTGTGTA
UDIA-075	TCGCTGTT	AACAGCGA	ACGACTTG
UDIA-076	GAATCCGA	TCGGATTC	CACTAGCT
UDIA-077	GTGCCATA	TATGGCAC	ACTAGGAG
UDIA-078	CTTAGGAC	GTCCTAAG	GTAGGAGT
UDIA-079	AACTGAGC	GCTCAGTT	CCTGATTG
UDIA-080	GACGATCT	AGATCGTC	ATGCACGA
UDIA-081	ATCCAGAG	CTCTGGAT	CGACGTTA
UDIA-082	AGAGTAGC	GCTACTCT	TACGCCTT
UDIA-083	TGGACTCT	AGAGTCCA	CCGTAAGA
UDIA-084	TACGCTAC	GTAGCGTA	ATCACACG
UDIA-085	GCTATCCT	AGGATAGC	CACCTGTT
UDIA-086	GCAAGATC	GATCTTGC	CTTCGACT
UDIA-087	ATCGATCG	CGATCGAT	TGCTTCCA
UDIA-088	CGGCTAAT	ATTAGCCG	AGAACGAG
UDIA-089	ACGGAACA	TGTTCCGT	GTTCTCGT
UDIA-090	CGCATGAT	ATCATGCG	TCAGGCTT
UDIA-091	TTCCAAGG	CCTTGGAA	CCTTGTAG
UDIA-092	CTTGTCGA	TCGACAAG	GAACATCG
UDIA-093	GAGACGAT	ATCGTCTC	TAACCGGT
UDIA-094	TGAGCTAG	CTAGCTCA	AACCGTTC
UDIA-095	ACTCTCGA	TCGAGAGT	TGGTACAG
UDIA-096	CTGATCGT	ACGATCAG	ATATGCGC

07/Appendix

Table 1. Recommended Adapter Dilution Ratios and Volumes for Library Preparation Featuring Mechanical Fragmentation

Input DNA	UDI Adapter Dilution Ratio	Usage Volume
1 ng	1:90	5 μl
10 ng	1:15	5 μl
50 ng	1:4	5 μl
100 ng	1:2	5 μl
≥500 ng	No dilution	5 μl

▲ Library preparation kit: VAHTS Universal DNA Library Prep Kit for Illumina V3 (Vazyme #ND607).

Table 2. Recommended Adapter Dilution Ratios and Volumes for Library Preparation Featuring Enzymatic Fragmentation

Input DNA	UDI Adapter Dilution Ratio	Usage Volume
1 ng	1:70	5 μl
100 ng	1:2	5 μl
1 μg	No dilution	5 μl

▲ Library preparation kit: VAHTS Universal Plus DNA Library Prep Kit for Illumina (Vazyme #ND617).

Table 3. Recommended Adapter Dilution Ratios and Volumes for Transcript Library Preparation

Input RNA	UDI Adapter Dilution Ratio	Usage Volume
10 ng	1:10	0.5 μl
100 ng	1:10	1 μl
1 μg	1:10	3.5 μl

▲ Library preparation kit: VAHTS Universal V8 RNA-seq Library Prep Kit for Illumina (Vazyme #NR605).

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