VAHTS Maxi Unique Dual Index DNA Adapters Set 4 for Illumina

N34204

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Instruction for Use

Version 22.1

Vazyme

Contents

01/Product Description

VAHTS Maxi Unique Dual Index DNA Adapters Set 4 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	N34204-01 (384 rxns)
VAHTS Maxi Unique Dual Index DNA Adapter for Illumina (UDIA 289 - UDIA 384)	20 μl each

03/Storage

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

04/Applications

VAHTS Maxi Unique Dual Index DNA Adapters Set 4 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)
N34204	UDIA-289	CTGAGATC	GATCTCAG	CATTGCCT
	UDIA-290	GTGGATAG	CTATCCAC	CTAGGTGA
	UDIA-291	ACCATCCA	TGGATGGT	TCCGTATG
	UDIA-292	AGAGGTTG	CAACCTCT	ACGATGAC
	UDIA-293	ATGCCAAC	GTTGGCAT	GTCGGTAA
	UDIA-294	GTTAAGGC	GCCTTAAC	TCGAAGGT
	UDIA-295	ACCTGACT	AGTCAGGT	AGAAGCGT
	UDIA-296	GCCACTTA	TAAGTGGC	CTCTACTC
	UDIA-297	ACCTCTGT	ACAGAGGT	CTAGGCAT
	UDIA-298	GATCCATG	CATGGATC	TGGAGTTG
	UDIA-299	CGCTTAAC	GTTAAGCG	GAGGACTT
	UDIA-300	TGTCTGCT	AGCAGACA	CAATCGAC
	UDIA-301	ATAAGGCG	CGCCTTAT	TCTAACGC
	UDIA-302	CGTCTTGT	ACAAGACG	TCTCGCAA
	UDIA-303	CTCCATGT	ACATGGAG	ATCGGTGT
	UDIA-304	TGTTCGAG	CTCGAACA	GAGATACG
	UDIA-305	AGCAAGCA	TGCTTGCT	GTCTCCTT
	UDIA-306	CGTATTCG	CGAATACG	AGTCGACA
	UDIA-307	AACGACGT	ACGTCGTT	CGGATTGA
	UDIA-308	GTTGCGAT	ATCGCAAC	CACAAGTC
	UDIA-309	AACGTGGA	TCCACGTT	TACATCGG
	UDIA-310	CTGTGTTG	CAACACAG	AGCTCCTA
	UDIA-311	TGATACGC	GCGTATCA	ACTCGTTG
	UDIA-312	GTCCTTCT	AGAAGGAC	CTGACACA
	UDIA-313	ACAGACCT	AGGTCTGT	CAACCTAG
	UDIA-314	TGTTGTGG	CCACAACA	AAGGACAC
	UDIA-315	CATCGTGA	TCACGATG	TGCAGGTA
	UDIA-316	CAGGAGAT	ATCTCCTG	ACCTAAGG
	UDIA-317	TAGGTAGG	CCTACCTA	AGTCTGTG
	UDIA-318	AGTCGCTT	AAGCGACT	AGGTTCGA
	UDIA-319	CGTTGAGT	ACTCAACG	GACTATGC
	UDIA-320	TTCCTGTG	CACAGGAA	TTCAGGAG
	UDIA-321	TCGTCTCA	TGAGACGA	TGTGCGTT
	UDIA-322	TAACGAGG	CCTCGTTA	CGAGACTA
	UDIA-323	CTGAAGCT	AGCTTCAG	CTCAGAGT
	UDIA-324	ATTGCGTG	CACGCAAT	GCCATAAC
	UDIA-325	CCAAGACT	AGTCTTGG	TTACCGAG
	UDIA-326	GCTGTAAG	CTTACAGC	GCTCTGTA
	UDIA-327	GAGTGGTT	AACCACTC	CGTTATGC
	UDIA-328	AGCTTGAG	CTCAAGCT	GTCTGATC
	UDIA-329	ACGACAGA	TCTGTCGT	TAGTTGCG
	UDIA-330	TTCGCAGT	ACTGCGAA	TGATCGGA
	UDIA-331	CCGATGTA	TACATCGG	CCAAGTTG
	UDIA-332	TGACGCAT	ATGCGTCA	CCTACTGA
	UDIA-333	TCGCATTG	CAATGCGA	CTTGCTGT
	UDIA-334	CGTGATCA	TGATCACG	TGCCATTC
	UDIA-335	GTGAGCTT	AAGCTCAC	TTGATCCG
	UDIA-336	AGCGGAAT	ATTCCGCT	AGTGCAGT
	UDIA-337	CGAAGAAC	GTTCTTCG	GACTTAGG
	UDIA-338	CCGTATCT	AGATACGG	CGTACGAA
	UDIA-339	GTACTCTC	GAGAGTAC	TACCAGGA
	UDIA-340	AGTGTTGG	CCAACACT	CGTCAATG
	UDIA-341	TGAACCTG	CAGGTTCA	GAAGAGGT
	UDIA-342	TCAAGGAC	GTCCTTGA	GACGAATG
	UDIA-343	GTGCTTAC	GTAAGCAC	AGGAGGAA
	UDIA-344	GTGGTGTT	AACACCAC	CTTACAGC
	UDIA-345	GCTGACTA	TAGTCAGC	GAGATGTC
	UDIA-346	TGCGAACT	AGTTCGCA	TACGGTTG
	UDIA-347	AATACGCG	CGCGTATT	CTATCGCA
	UDIA-348	ACACGGTT	AACCGTGT	TCGAACCA
	UDIA-349	CTGCACTT	AAGTGCAG	GAACGCTT
	UDIA-350	TCAACTGG	CCAGTTGA	CAGAATCG
	UDIA-351	AGTTGGCT	AGCCAACT	ATGGTTGC
	UDIA-352	CAGGTTAG	CTAACCTG	GCTGGATT
	UDIA-353	ACACCAGT	ACTGGTGT	GATGCACT
	UDIA-354	TGGATCAC	GTGATCCA	ACCAATGC
	UDIA-355	TGACTTCG	CGAAGTCA	GTCCTAAG
	UDIA-356	GTGTCTGA	TCAGACAC	CCGACTAT
	UDIA-357	AGTTACGG	CCGTAACT	TTGGTCTC
	UDIA-358	ATCTCGCT	AGCGAGAT	GCCTTGTT
	UDIA-359	GAAGGTTC	GAACCTTC	GATACTGG
	UDIA-360	GAGCTTGT	ACAAGCTC	ATTCGAGG
	UDIA-361	TCCAATCG	CGATTGGA	GTCAGTTG
	UDIA-362	CGGTCATA	TATGACCG	GTAGAGCA
	UDIA-363	TGGCTATC	GATAGCCA	ACGTGATG
	UDIA-364	CAACGGAT	ATCCGTTG	TAAGTGGC
	UDIA-365	CTCCTAGA	TCTAGGAG	TGTGAAGC
	UDIA-366	CCGGAATT	AATTCCGG	CATTCGGT
	UDIA-367	TAGACGTG	CACGTCTA	TTGGTGAG
	UDIA-368	TGACTGAC	GTCAGTCA	CAGTTCTG
	UDIA-369	TAGAGCTC	GAGCTCTA	AGGCTTCT
	UDIA-370	TCCGTGAA	TTCACGGA	GAATCGTG
	UDIA-371	CTCGATAC	GTATCGAG	ACCAGCTT
	UDIA-372	CTTACCTG	CAGGTAAG	CTCATTGC
	UDIA-373	ATGGCGAA	TTCGCCAT	CGATAGAG
	UDIA-374	TCCTACCT	AGGTAGGA	TGGAGAGT
	UDIA-375	CCTCAGTT	AACTGAGG	GTATGCTG
	UDIA-376	CTACTTGG	CCAAGTAG	CTGGAGTA
	UDIA-377	TCACAGCA	TGCTGTGA	AATGCCTC
	UDIA-378	CACGTTGT	ACAACGTG	TGAGGTGT
	UDIA-379	AAGTCGAG	CTCGACTT	ACATTGCG
	UDIA-380	TGTACCGT	ACGGTACA	TCTCTAGG
	UDIA-381	CTCATCAG	CTGATGAG	CGCTAGTA
	UDIA-382	AGTCTCAC	GTGAGACT	AATGGACG
	UDIA-383	CTTGGATG	CATCCAAG	GATAGCGA
	UDIA-384	GCCTATCA	TGATAGGC	CGACCATT

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).