

VAHTS Maxi Unique Dual Index DNA Adapters Set 3 for Illumina

N34203



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Instruction for Use

Version 22.1

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01/Product Description

VAHTS Maxi Unique Dual Index DNA Adapters Set 3 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	N34203-01 (384 rxns)
VAHTS Maxi Unique Dual Index DNA Adapter for Illumina (UDIA 193 - UDIA 288)	20 µl each

03/Storage

Store at -30 ~ -15°C and transport at ≤0°C.

04/Applications

VAHTS Maxi Unique Dual Index DNA Adapters Set 3 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	i5 index	i7 index
	(HiSeq 2000/2500, MiSeq, NovaSeq v1.0)	(HiSeq 3000/4000, NextSeq, MiniSeq, NovaSeq v1.5)	(all Illumina systems)
UDIA-193	ACCTTCTC	GAGAAGGT	CTTCGTTT
UDIA-194	TCGTGGAT	ATCCACGA	GTCTAGGT
UDIA-195	GTTTCATG	CCATGAAC	ACGTCGTA
UDIA-196	TAGGATGC	GCATCCTA	GAGCTCAA
UDIA-197	CATGGAAC	GTTCCATG	CGTGACT
UDIA-198	GCTTAGCT	AGCTAAGC	CACTGACA
UDIA-199	CTAACTCG	CGAGTTAG	TCGTAGTC
UDIA-200	ACCATGTG	CACATGGT	GCACGTAA
UDIA-201	GGCAGATC	GATCTGCC	CGCTGCTC
UDIA-202	TATCAGCG	CGCTGATA	ACATAGGC
UDIA-203	AGCAGATG	CATCTGCT	TGTGGTAC
UDIA-204	AACGGTCA	TGACCGTT	CACCACTA
UDIA-205	CGAACTGT	ACAGTTCG	CTGCGTAT
UDIA-206	TCCGAGTT	AACTCGGA	ACGGTCTT
UDIA-207	TTCTCTCG	CGAGAGAA	GATTGGAG
UDIA-208	ATTCTGGC	GCCAGAAT	TGTCCAGA
UDIA-209	ACTGCTAG	CTAGCAGT	CCAGTGTT
UDIA-210	CATAACGG	CCGTTATG	TGCACCAA
UDIA-211	CAGTCTTC	GAAGACTG	TTGACAGG
UDIA-212	TGCCTCTT	AAGAGGCA	AGGCATAG
UDIA-213	ACTGTGTC	GACACAGT	TAGCCGAA
UDIA-214	GTATTGGC	GCCAATAC	TTGTGCGT
UDIA-215	CGATGCTT	AAGCATCG	CATCTACG
UDIA-216	AAGGCTGA	TCAGCCTT	GCATACAG
UDIA-217	AGTCAGGA	TCCTGACT	ACAGCAAC
UDIA-218	CAGGTATC	GATACCTG	CTGGTTCT
UDIA-219	TCTCCGAT	ATCGGAGA	TCGACATC
UDIA-220	TTCAGCCT	AGGCTGAA	AACCTCCT
UDIA-221	TCTGAGAG	CTCTCAGA	CAGCGATT
UDIA-222	TTAGGTCG	CGACCTAA	AGGTCACT
UDIA-223	CTCTGGTT	AACCAGAG	GCAATTCG
UDIA-224	GCGTTCTA	TAGAACGC	GCTTCTTG
UDIA-225	TCACGTTT	GAACGTGA	AACTGGTG
UDIA-226	AGGATGGT	ACCATCCT	CGGAATAC
UDIA-227	GTGTTCCCT	AGGAACAC	GCTTCGAA
UDIA-228	GTAGCATC	GATGCTAC	CAAGGTCT
UDIA-229	AGGATCTG	CAGATCCT	AACTTTGG
UDIA-230	GACAAGAG	CTCTTGTC	CCATACGT
UDIA-231	TTACGGCT	AGCCGTAA	TGGTCCTT
UDIA-232	GCTGTTGT	ACAACAGC	ACCGCATA
UDIA-233	AACCGAAG	CTTCGGTT	CCTTCCTT
UDIA-234	TCTGCTCT	AGAGCAGA	TACAGCCT
UDIA-235	CTCAGCTA	TAGCTGAG	TGCGTAGA
UDIA-236	CTTCACCA	TGGTGAAG	AAGAGCCA

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UDIA-237	GATCGTAC	GTACGATC	ATGGAAGG
UDIA-238	CTACAGTG	CACTGTAG	GCCAGTAT
UDIA-239	TCGAGTGA	TCACTCGA	CGTAGGTT
UDIA-240	CAAGTGCA	TGCACTTG	CGAGTATG
UDIA-241	CGAGTATG	CATACTCG	CAAGTGCA
UDIA-242	CGTAGGTT	AACCTACG	TCGAGTGA
UDIA-243	GCCAGTAT	ATACTGGC	CTACAGTG
UDIA-244	ATGGAAGG	CCTTCCAT	GATCGTAC
UDIA-245	AAGAGCCA	TGGCTCTT	CTTCACCA
UDIA-246	TGCGTAGA	TCTACGCA	CTCAGCTA
UDIA-247	TACACGCT	AGCGTGTA	TCTGCTCT
UDIA-248	CCTTCCTT	AAGGAAGG	AACCGAAG
UDIA-249	ACCGCATA	TATGCGGT	GCTGTTGT
UDIA-250	TGGTCCTT	AAGGACCA	TTACGGCT
UDIA-251	CCATACGT	ACGTATGG	GACAAGAG
UDIA-252	AACCTTGG	CCAAGGTT	AGGATCTG
UDIA-253	CAAGGTCT	AGACCTTG	GTAGCATC
UDIA-254	GCTTCGAA	TTCGAAGC	GTGTTCTT
UDIA-255	CGGAATAC	GTATTCCG	AGGATGGT
UDIA-256	AACTGGTG	CACCAGTT	TCACGTTC
UDIA-257	GCTTCTTG	CAAGAAGC	GCGTTCTA
UDIA-258	GCAATTGC	CGAATTGC	CTCTGGTT
UDIA-259	AGGTCACT	AGTGACCT	TTAGGTCT
UDIA-260	CAGCGATT	AATCGCTG	TCTGAGAG
UDIA-261	AACCTCCT	AGGAGGTT	TTCAGCCT
UDIA-262	TCGACATC	GATGTCGA	TCTCCGAT
UDIA-263	CTGGTTCT	AGAACCAG	CAGGTATC
UDIA-264	ACAGCAAC	GTTGCTGT	AGTCAGGA
UDIA-265	GCATACAG	CTGTATGC	AAGGCTGA
UDIA-266	CATCTACG	CGTAGATG	CGATGCTT
UDIA-267	TTGTCGGT	ACCGACAA	GTATTGGC
UDIA-268	TAGCCGAA	TTCGGCTA	ACTGTGTC
UDIA-269	AGGCATAG	CTATGCCT	TGCCCTCT
UDIA-270	TTGACAGG	CCTGTCAA	CAGTCTTC
UDIA-271	TGCACCAA	TTGGTGCA	CATAACGG
UDIA-272	CCAGTGTT	AACACTGG	ACTGCTAG
UDIA-273	TGTCCAGA	TCTGGACA	ATTCTGGC
UDIA-274	GATTGGAG	CTCCAATC	TTCTCTCG
UDIA-275	ACGGTCTT	AAGACCGT	TCCGAGTT
UDIA-276	CTGCGTAT	ATACGCAG	CGAACTGT
UDIA-277	CACCACTA	TAGTGGTG	AACGGTCA
UDIA-278	TGTGGTAC	GTACCACA	AGCAGATG
UDIA-279	ACATAGGC	GCCTATGT	TATCAGCG
UDIA-280	CAAGCAGT	ACTGCTTG	TCAGACGA
UDIA-281	GCACGTAA	TTACGTGC	ACCATGTG
UDIA-282	TCGTAGTC	GACTACGA	CTAACTCG
UDIA-283	CACTGACA	TGTCAGTG	GCTTAGCT
UDIA-284	CGTGTAAT	AGTACACG	CATGGAAC
UDIA-285	GAGCTCAA	TTGAGCTC	TAGGATGC
UDIA-286	ACGTCGTA	TACGACGT	GTTTATGG
UDIA-287	GTCTAGGT	ACCTAGAC	TCGTGGAT
UDIA-288	CTTCGTTT	GAACGAAG	ACCTTCTC

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).