VAHTS Maxi Unique Dual Index DNA Adapters Set 2 for Illumina

N34202

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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 2 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	N34202-01 (384 rxns)
VAHTS Maxi Unique Dual Index DNA Adapter for Illumina (UDIA 097 - UDIA 0192)	20 μl each

03/Storage

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

04/Applications

VAHTS Maxi Unique Dual Index DNA Adapters Set 2 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)
N34202	UDIA-097	CGACCATT	AATGGTCG	GCCTATCA
	UDIA-098	GATAGCGA	TCGCTATC	CTTGGATG
	UDIA-099	AATGGACG	CGTCCATT	AGTCTCAC
	UDIA-100	CGCTAGTA	TACTAGCG	CTCATCAG
	UDIA-101	TCTCTAGG	CCTAGAGA	TGTACCGT
	UDIA-102	ACATTGCG	CGCAATGT	AAGTCGAG
	UDIA-103	TGAGGTGT	ACACCTCA	CACGTTGT
	UDIA-104	AATGCCTC	GAGGCATT	TCACAGCA
	UDIA-105	CTGGAGTA	TACTCCAG	CTACTTGG
	UDIA-106	GTATGCTG	CAGCATAC	CCTCAGTT
	UDIA-107	TGGAGAGT	ACTCTCCA	TCCTACCT
	UDIA-108	CGATAGAG	CTCTATCG	ATGGCGAA
	UDIA-109	CTCATTGC	GCAATGAG	CTTACCTG
	UDIA-110	ACCAGCTT	AAGCTGGT	CTCGATAC
	UDIA-111	GAATCGTG	CACGATTC	TCCGTGAA
	UDIA-112	AGGCTTCT	AGAAGCCT	TAGAGCTC
	UDIA-113	CAGTTCTG	CAGAACTG	TGACTGAC
	UDIA-114	TTGGTGAG	CTCACCAA	TAGACGTG
	UDIA-115	CATTCGGT	ACCGAATG	CCGGAATT
	UDIA-116	TGTGAAGC	GCTTCACA	CTCCTAGA
	UDIA-117	TAAGTGGC	GCCACTTA	CAACGGAT
	UDIA-118	ACGTGATG	CATCACGT	TGGCTATC
	UDIA-119	GTAGAGCA	TGCTCTAC	CGGTCATA
	UDIA-120	GTCAGTTG	CAACTGAC	TCCAATCG
	UDIA-121	ATTCGAGG	CCTCGAAT	GAGCTTGT
	UDIA-122	GATACTGG	CCAGTATC	GAAGGTTC
	UDIA-123	GCCTTGTT	AACAAGGC	ATCTCGCT
	UDIA-124	TTGGTCTC	GAGACCAA	AGTTACGG
	UDIA-125	CCGACTAT	ATAGTCGG	GTGTCTGA
	UDIA-126	GTCCTAAG	CTTAGGAC	TGACTTCG
	UDIA-127	ACCAATGC	GCATTGGT	TGGATCAC
	UDIA-128	GATGCACT	AGTGCATC	ACACCAGT
	UDIA-129	GCTGGATT	AATCCAGC	CAGGTTAG
	UDIA-130	ATGGTTGC	GCAACCAT	AGTTGGCT
	UDIA-131	CAGAATCG	CGATTCTG	TCAACTGG
	UDIA-132	GAACGCTT	AAGCGTTC	CTGCACTT
	UDIA-133	TCGAACCA	TGGTTCGA	ACACGGTT
	UDIA-134	CTATCGCA	TGCGATAG	AATACGCG
	UDIA-135	TACGGTTG	CAACCGTA	TGCGAACT
	UDIA-136	GAGATGTC	GACATCTC	GCTGACTA
	UDIA-137	CTTACAGC	GCTGTAAG	GTGGTGTT
	UDIA-138	AGGAGGAA	TTCCTCCT	GTGCTTAC
	UDIA-139	GACGAATG	CATTCGTC	TCAAGGAC
	UDIA-140	GAAGAGGT	ACCTCTTC	TGAACCTG
	UDIA-141	CGTCAATG	CATTGACG	AGTGTTGG
	UDIA-142	TACCAGGA	TCCTGGTA	GTACTCTC
	UDIA-143	CGTACGAA	TTCGTACG	CCGTATCT
	UDIA-144	GACTTAGG	CCTAAGTC	CGAAGAAC
	UDIA-145	AGTGCAGT	ACTGCACT	AGCGGAAT
	UDIA-146	TTGATCCG	CGGATCAA	GTGAGCTT
	UDIA-147	TGCCATTC	GAATGGCA	CGTGATCA
	UDIA-148	CTTGCTGT	ACAGCAAG	TCGCATTG
	UDIA-149	CCTACTGA	TCAGTAGG	TGACGCAT
	UDIA-150	CCAAGTTG	CAACTTGG	CCGATGTA
	UDIA-151	TGATCGGA	TCCGATCA	TTCGCAGT
	UDIA-152	TAGTTGCG	CGCAACTA	ACGACAGA
	UDIA-153	GTCTGATC	GATCAGAC	AGCTTGAG
	UDIA-154	CGTTATGC	GCATAACG	GAGTGGTT
	UDIA-155	GCTCTGTA	TACAGAGC	GCTGTAAG
	UDIA-156	TTACCGAG	CTCGGTAA	CCAAGACT
	UDIA-157	GCCATAAC	GTTATGGC	ATTGCGTG
	UDIA-158	CTCAGAGT	ACTCTGAG	CTGAAGCT
	UDIA-159	CGAGACTA	TAGTCTCG	TAACGAGG
	UDIA-160	TGTGCGTT	AACGCACA	TCGTCTCA
	UDIA-161	TTCAGGAG	CTCCTGAA	TTCCTGTG
	UDIA-162	GACTATGC	GCATAGTC	CGTTGAGT
	UDIA-163	AGGTTCGA	TCGAACCT	AGTCGCTT
	UDIA-164	AGTCTGTG	CACAGACT	TAGGTAGG
	UDIA-165	ACCTAAGG	CCTTAGGT	CAGGAGAT
	UDIA-166	TGCAGGTA	TACCTGCA	CATCGTGA
	UDIA-167	AAGGACAC	GTGTCCTT	TGTTGTGG
	UDIA-168	CAACCTAG	CTAGGTTG	ACAGACCT
	UDIA-169	CTGACACA	TGTGTCAG	GTCCTTCT
	UDIA-170	ACTCGTTG	CAACGAGT	TGATACGC
	UDIA-171	AGCTCCTA	TAGGAGCT	CTGTGTTG
	UDIA-172	TACATCGG	CCGATGTA	AACGTGGA
	UDIA-173	CACAAGTC	GACTTGTG	GTTGCGAT
	UDIA-174	CGGATTGA	TCAATCCG	AACGACGT
	UDIA-175	AGTCGACA	TGTCGACT	CGTATTCG
	UDIA-176	GTCTCCTT	AAGGAGAC	AGCAAGCA
	UDIA-177	GAGATACG	CGTATCTC	TGTTCGAG
	UDIA-178	ATCGGTGT	ACACCGAT	CTCCATGT
	UDIA-179	TCTCGCAA	TTGCGAGA	CGTCTTGT
	UDIA-180	TCTAACGC	GCGTTAGA	ATAAGGCG
	UDIA-181	CAATCGAC	GTCGATTG	TGTCTGCT
	UDIA-182	GAGGACTT	AAGTCCTC	CGCTTAAC
	UDIA-183	TGGAGTTG	CAACTCCA	GATCCATG
	UDIA-184	CTAGGCAT	ATGCCTAG	ACCTCTGT
	UDIA-185	CTCTACTC	GAGTAGAG	GCCACTTA
	UDIA-186	AGAAGCGT	ACGCTTCT	ACCTGACT
	UDIA-187	TCGAAGGT	ACCTTCGA	GTTAAGGC
	UDIA-188	GTCGGTAA	TTACCGAC	ATGCCAAC
	UDIA-189	ACGATGAC	GTCATCGT	AGAGGTTG
	UDIA-190	TCCGTATG	CATACGGA	ACCATCCA
	UDIA-191	CTAGGTGA	TCACCTAG	GTGGATAG
	UDIA-192	CATTGCCT	AGGCAATG	CTGAGATC

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).