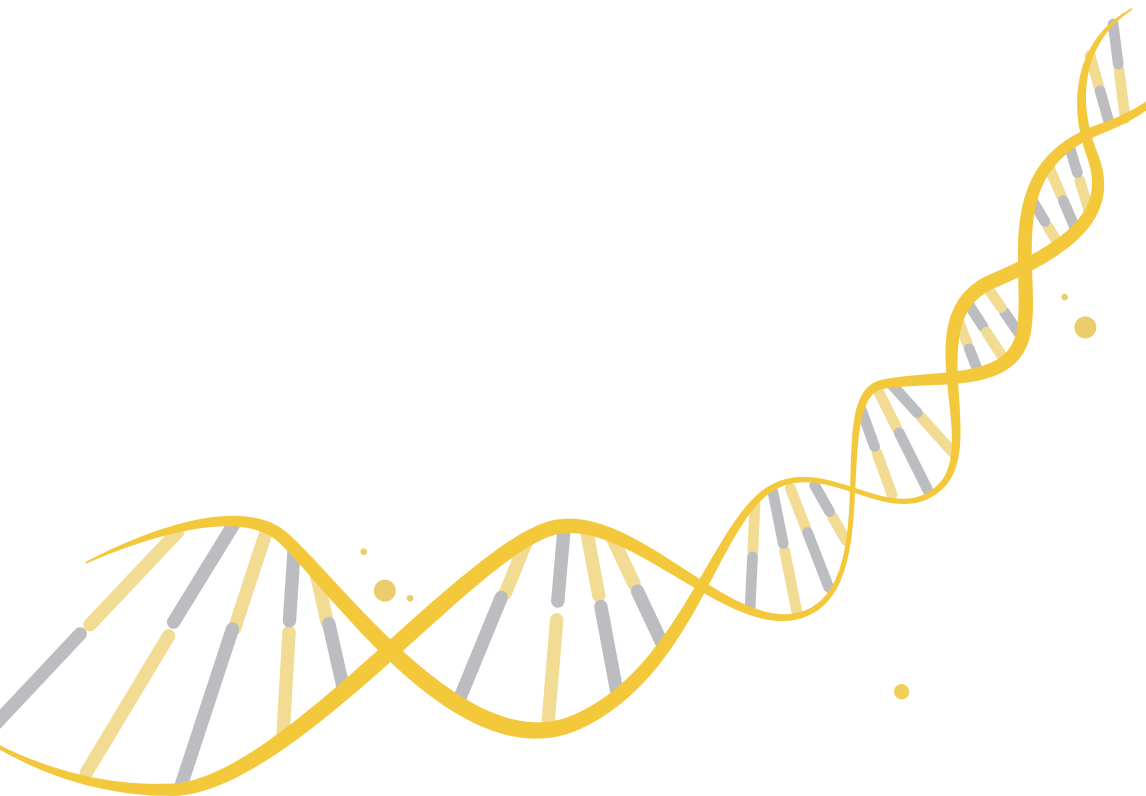




Truncated DNA Adapter Kit for Illumina

Set_C (48 indices) RK20294

Set_D (48 indices) RK20295



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1. Introduction

ABclonal Truncated DNA Adapter Kit for Illumina Set_C/Set_D (48 indices) is ideally suited for sample preparation for next-generation sequencing on the illumina platform. Truncated DNA adapters have higher DNA ligation efficiency, lower or no adapter-dimers than full-length Y-shape DNA adapters. ABclonal Truncated DNA Adapter Kit for Illumina Set_C/Set_D box contains truncated adapter, universal PCR primer and 48 PCR index oligos. When using truncated DNA adapters, a minimum number of PCR amplification cycles (2-3) may be required to complete adapter sequences required for hybridization of the templates to the flowcell surface, and for annealing of sequencing primers. The kit can **NOT** be used to perform PCR-free DNA library preparation. ABclonal Truncated DNA Adapter Kit for Illumina Set_C/Set_D (48 indices) can be used in the ABclonal Rapid DNA Lib Prep Kit and ABclonal StepWise DNA Lib Prep Kit.

2.Component

Truncated DNA Adapter Kit for Illumina Set_C (48 indices) (RK20294)

Name	Index	Volume	Name	Index	volume
Truncated Adapter	-	600µL	Universal PCR Primer	-	600µL
PCR Index 1	TTACCGAC	12.5µL	PCR Index 25	TTCCAGGT	12.5µL
PCR Index 2	AGTGACCT	12.5µL	PCR Index 26	TCATCTCC	12.5µL
PCR Index 3	TCGGATTC	12.5µL	PCR Index 27	GAGAGTAC	12.5µL
PCR Index 4	CAAGGTAC	12.5µL	PCR Index 28	GTCGTTAC	12.5µL
PCR Index 5	TCCTCATG	12.5µL	PCR Index 29	GGAGGAAT	12.5µL
PCR Index 6	GTCAGTCA	12.5µL	PCR Index 30	AGGAACAC	12.5µL
PCR Index 7	CGAATACG	12.5µL	PCR Index 31	CAGTGCTT	12.5µL
PCR Index 8	TCTAGGAG	12.5µL	PCR Index 32	CTTGCTAG	12.5µL
PCR Index 9	CGCAACTA	12.5µL	PCR Index 33	TGGAAGCA	12.5µL
PCR Index 10	CGTATCTC	12.5µL	PCR Index 34	AGCTAAGC	12.5µL
PCR Index 11	GTACACCT	12.5µL	PCR Index 35	GAACGGTT	12.5µL
PCR Index 12	CGGCATTA	12.5µL	PCR Index 36	GGAATGTC	12.5µL
PCR Index 13	TCGTCTGA	12.5µL	PCR Index 37	TACGGTCT	12.5µL
PCR Index 14	AGCCTATC	12.5µL	PCR Index 38	CCAGTATC	12.5µL
PCR Index 15	CTGTACCA	12.5µL	PCR Index 39	TCTACGCA	12.5µL
PCR Index 16	AGACCTTG	12.5µL	PCR Index 40	GTAACCGA	12.5µL
PCR Index 17	AGGATAGC	12.5µL	PCR Index 41	GACGTCAT	12.5µL
PCR Index 18	CCTTCCAT	12.5µL	PCR Index 42	CTTACAGC	12.5µL
PCR Index 19	GTCCTTGA	12.5µL	PCR Index 43	TCCATTGC	12.5µL
PCR Index 20	TGCGTAAC	12.5µL	PCR Index 44	AGCGAGAT	12.5µL
PCR Index 21	CACAGACT	12.5µL	PCR Index 45	CAATAGCC	12.5µL
PCR Index 22	TTACGTGC	12.5µL	PCR Index 46	AAGACACC	12.5µL
PCR Index 23	CCAAGGTT	12.5µL	PCR Index 47	CCAGTTGA	12.5µL
PCR Index 24	CACGCAAT	12.5µL	PCR Index 48	TGGTGAAG	12.5µL

Truncated DNA Adapter Kit for Illumina Set_D (48 indices) (RK20295)

Name	Index	Volume	Name	Index	volume
Truncated Adapter	-	600µL	Universal PCR Primer	-	600µL
PCR Index 49	AAGACCGT	12.5µL	PCR Index 73	TAGGAGCT	12.5µL
PCR Index 50	TTGCGAGA	12.5µL	PCR Index 74	CGAATTGC	12.5µL
PCR Index 51	GCAATTCC	12.5µL	PCR Index 75	GTCCTAAG	12.5µL
PCR Index 52	GAATCCGT	12.5µL	PCR Index 76	CTTAGGAC	12.5µL
PCR Index 53	CCGCTTAA	12.5µL	PCR Index 77	TCCACGTT	12.5µL
PCR Index 54	TACCTGCA	12.5µL	PCR Index 78	CAACACAG	12.5µL
PCR Index 55	GTCGATTG	12.5µL	PCR Index 79	GCCTTAAC	12.5µL
PCR Index 56	TATGGCAC	12.5µL	PCR Index 80	GTAAGGTG	12.5µL
PCR Index 57	CTCGAACA	12.5µL	PCR Index 81	AGCTACCA	12.5µL
PCR Index 58	CAACTCCA	12.5µL	PCR Index 82	CTTCACTG	12.5µL
PCR Index 59	GTCATCGT	12.5µL	PCR Index 83	GGTTGAAC	12.5µL
PCR Index 60	GGACATCA	12.5µL	PCR Index 84	GATAGCCA	12.5µL
PCR Index 61	CAGGTTCA	12.5µL	PCR Index 85	TACTCCAG	12.5µL
PCR Index 62	GAACGAAG	12.5µL	PCR Index 86	GGAAGAGA	12.5µL
PCR Index 63	CTCAGAAG	12.5µL	PCR Index 87	GCGTTAGA	12.5µL
PCR Index 64	CATGAGCA	12.5µL	PCR Index 88	ATCTGACC	12.5µL
PCR Index 65	GACGAACT	12.5µL	PCR Index 89	AACCAGAG	12.5µL
PCR Index 66	AGACGCTA	12.5µL	PCR Index 90	GTACCACA	12.5µL
PCR Index 67	ATAACGCC	12.5µL	PCR Index 91	GGTATAGG	12.5µL
PCR Index 68	GAATCACC	12.5µL	PCR Index 92	CGAGAGAA	12.5µL
PCR Index 69	GGCAAGTT	12.5µL	PCR Index 93	CAGCATAC	12.5µL
PCR Index 70	GATCTTGC	12.5µL	PCR Index 94	CTCGACTT	12.5µL
PCR Index 71	CAATGCGA	12.5µL	PCR Index 95	CTTCGGTT	12.5µL
PCR Index 72	GGTGTACA	12.5µL	PCR Index 96	CCACAACA	12.5µL

3.Storage

Stored at -20°C. The shelf life of all reagents is one year when stored properly.

4.PCR recommendation

Assemble each library amplification reaction as follows:

Component	Volume
2x HotStart PCR Mix*	25 µl
Universal PCR Primer	2.5 µl
PCR Index oligo	2.5 µl
Adapter-ligated library*	20 µl
Total volume	50 µl

*Prepare Ligated-DNA library as the protocol in the ABclonal Rapid DNA Lib Prep Kit or ABclonal StepWise DNA Lib Prep Kit. **DO NOT** premix ligase MM, ligase Mix and adapter prior to use in the Adapter ligation step.

Incubate the samples in a thermocycler using the conditions listed in the table below.

98°C	45s	
98°C	15s	
60°C	30s	2-19 PCR cycles
72°C	30s	
72°C	1 min	
12°C	∞	

To construct 1 µg of DNA library, the cycle number of amplification is recommended for different amounts of input according to the table below.

Input DNA (in the End-Prep step)	PCR Cycles (for 1µg of yield)
1 µg	2-3
500 ng	3-4
250 ng	5-6
100 ng	7-8
50 ng	8-9
25 ng	9-10
10 ng	11-13
5 ng	13-14
1 ng	17-19

5.Oligonucleotide Sequences

Truncated Adaptor:

5'-Spc/A*C*A*CTCTTCCCTACACGACGCTCTCCGA*T*C*T-3'
 3'-Spc/CTGACCTCAAGTCTGCACACGAGAAGGC*T*A*G/Phos-5'

Universal PCR Primer

5'-Spc/A*A*T*GATACGGCGACCACCGAGATCTACACTCTTCCCTACACGAC-
 GCTCTCCGA*T*C*T-3'

PCR Index 1 (TTACCGAC):

5'-Spc/C*A*A*GCAGAAGACGGCATAACGAGATGTCGGTAAGTGACTGGAGTTCAGACGT-
 GTGCTCTCCGA*T*C*T-3'

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