*Trans*NGS® UDI Indexed Adapter Kit for Illumina®

Please read the datasheet carefully prior to use.

Version No. Version 1.0

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Cat. No. KI341
Version No. Version 1.0
Storage: at -20°C for two years

Description

*Trans*NGS® UDI Indexed Adapter Kit for Illumina® provides 96 Adapters composed of independent i5 and i7. It is the Long Adapter kit containing paired-end Index for multiplex library preparation suitable for Illumina high-throughput sequencing platform.

Application

Multiplex next-generation sequencing library preparations on the Illumina platform.

Kit Contents

Component	KI341-00 (24 rxns)	KI341-01 (192 rxns)	KI341-02 (384 rxns)
*Trans*NGS® Adapter Dilution Buffer	5 mL	2×5 mL	4×5 mL
*Trans*NGS® UDI Indexed Adapter	1-12 10 μl each	1-96 10 μl each	1-96 20 μl each

Sequence information of Index in Adapter

Adapter Name	Single i5 Index sequence		Single i7 Index sequence
	Miseq, HiSeq 2000/ 2500, NovaSeq v1.0	MiniSeq, NextSeq, HiSeq 3000/4000, NovaSeq v1.5	All Illumina Systems
*Trans*NGS® UDI Indexed Adapter 1 for Illumina® (16 μM)	AGCGCTAG	CTAGCGCT	CCGCGGTT
*Trans*NGS® UDI Indexed Adapter 2 for Illumina® (16 μM)	GATATCGA	TCGATATC	TTATAACC
*Trans*NGS® UDI Indexed Adapter 3 for Illumina® (16 μM)	CGCAGACG	CGTCTGCG	GGACTTGG
*Trans*NGS® UDI Indexed Adapter 4 for Illumina® (16 μM)	TATGAGTA	TACTCATA	AAGTCCAA
*Trans*NGS® UDI Indexed Adapter 5 for Illumina® (16 μM)	AGGTGCGT	ACGCACCT	ATCCACTG
*Trans*NGS® UDI Indexed Adapter 6 for Illumina® (16 μM)	GAACATAC	GTATGTTC	GCTTGTCA
*Trans*NGS® UDI Indexed Adapter 7 for Illumina® (16 μM)	ACATAGCG	CGCTATGT	CAAGCTAG
*Trans*NGS® UDI Indexed Adapter 8 for Illumina® (16 μM)	GTGCGATA	TATCGCAC	TGGATCGA
*Trans*NGS® UDI Indexed Adapter 9 for Illumina® (16 μM)	CCAACAGA	TCTGTTGG	AGTTCAGG
*Trans*NGS® UDI Indexed Adapter 10 for Illumina® (16 μM)	TTGGTGAG	CTCACCAA	GACCTGAA
*Trans*NGS® UDI Indexed Adapter 11 for Illumina® (16 μM)	CGCGGTTC	GAACCGCG	TCTCTACT
*Trans*NGS® UDI Indexed Adapter 12 for Illumina® (16 μM)	TATAACCT	AGGTTATA	CTCTCGTC
*Trans*NGS® UDI Indexed Adapter 13 for Illumina® (16 μM)	AAGGATGA	TCATCCTT	CCAAGTCT
*Trans*NGS® UDI Indexed Adapter 14 for Illumina® (16 μM)	GGAAGCAG	CTGCTTCC	TTGGACTC
*Trans*NGS® UDI Indexed Adapter 15 for Illumina® (16 μM)	TCGTGACC	GGTCACGA	GGCTTAAG
*Trans*NGS® UDI Indexed Adapter 16 for Illumina® (16 μM)	CTACAGTT	AACTGTAG	AATCCGGA
*Trans*NGS® UDI Indexed Adapter 17 for Illumina® (16 μM)	ATATTCAC	GTGAATAT	TAATACAG
*Trans*NGS® UDI Indexed Adapter 18 for Illumina® (16 μM)	GCGCCTGT	ACAGGCGC	CGGCGTGA
*Trans*NGS® UDI Indexed Adapter 19 for Illumina® (16 μM)	ACTCTATG	CATAGAGT	ATGTAAGT
*Trans*NGS® UDI Indexed Adapter 20 for Illumina® (16 μM)	GTCTCGCA	TGCGAGAC	GCACGGAC
*Trans*NGS® UDI Indexed Adapter 21 for Illumina® (16 μM)	AAGACGTC	GACGTCTT	GGTACCTT

Adapter Name	Single i5 Index sequence		Single i7 Index sequence
	Miseq, HiSeq 2000/ 2500, NovaSeq v1.0	MiniSeq, NextSeq, HiSeq 3000/4000, NovaSeq v1.5	All Illumina Systems
*Trans*NGS® UDI Indexed Adapter 22 for Illumina® (16 μM)	GGAGTACT	AGTACTCC	AACGTTCC
*Trans*NGS® UDI Indexed Adapter 23 for Illumina® (16 μM)	ACCGGCCA	TGGCCGGT	GCAGAATT
*Trans*NGS® UDI Indexed Adapter 24 for Illumina® (16 μM)	GTTAATTG	CAATTAAC	ATGAGGCC
*Trans*NGS® UDI Indexed Adapter 25 for Illumina® (16 μM)	AACCGCGG	CCGCGGTT	ACTAAGAT
*Trans*NGS® UDI Indexed Adapter 26 for Illumina® (16 μM)	GGTTATAA	TTATAACC	GTCGGAGC
*Trans*NGS® UDI Indexed Adapter 27 for Illumina® (16 μM)	CCAAGTCC	GGACTTGG	CTTGGTAT
*Trans*NGS® UDI Indexed Adapter 28 for Illumina® (16 μM)	TTGGACTT	AAGTCCAA	TCCAACGC
*Trans*NGS® UDI Indexed Adapter 29 for Illumina® (16 μM)	CAGTGGAT	ATCCACTG	CCGTGAAG
*Trans*NGS® UDI Indexed Adapter 30 for Illumina® (16 μM)	TGACAAGC	GCTTGTCA	TTACAGGA
*Trans*NGS® UDI Indexed Adapter 31 for Illumina® (16 μM)	CTAGCTTG	CAAGCTAG	GGCATTCT
*Trans*NGS® UDI Indexed Adapter 32 for Illumina® (16 μM)	TCGATCCA	TGGATCGA	AATGCCTC
*Trans*NGS® UDI Indexed Adapter 33 for Illumina® (16 μM)	CCTGAACT	AGTTCAGG	TACCGAGG
*Trans*NGS® UDI Indexed Adapter 34 for Illumina® (16 μM)	TTCAGGTC	GACCTGAA	CGTTAGAA
*Trans*NGS® UDI Indexed Adapter 35 for Illumina® (16 μM)	AGTAGAGA	TCTCTACT	AGCCTCAT
*Trans*NGS® UDI Indexed Adapter 36 for Illumina® (16 μM)	GACGAGAG	CTCTCGTC	GATTCTGC
*Trans*NGS® UDI Indexed Adapter 37 for Illumina® (16 μM)	AGACTTGG	CCAAGTCT	TCGTAGTG
*Trans*NGS® UDI Indexed Adapter 38 for Illumina® (16 μM)	GAGTCCAA	TTGGACTC	CTACGACA
*Trans*NGS® UDI Indexed Adapter 39 for Illumina® (16 μM)	CTTAAGCC	GGCTTAAG	TAAGTGGT
*Trans*NGS® UDI Indexed Adapter 40 for Illumina® (16 μM)	TCCGGATT	AATCCGGA	CGGACAAC
*Trans*NGS® UDI Indexed Adapter 41 for Illumina® (16 μM)	CTGTATTA	TAATACAG	ATATGGAT
*Trans*NGS® UDI Indexed Adapter 42 for Illumina® (16 μM)	TCACGCCG	CGGCGTGA	GCGCAAGC
*Trans*NGS® UDI Indexed Adapter 43 for Illumina® (16 μM)	ACTTACAT	ATGTAAGT	AAGATACT
*Trans*NGS® UDI Indexed Adapter 44 for Illumina® (16 μM)	GTCCGTGC	GCACGGAC	GGAGCGTC
*Trans*NGS® UDI Indexed Adapter 45 for Illumina® (16 μM)	AAGGTACC	GGTACCTT	ATGGCATG
*Trans*NGS® UDI Indexed Adapter 46 for Illumina® (16 μM)	GGAACGTT	AACGTTCC	GCAATGCA
*Trans*NGS® UDI Indexed Adapter 47 for Illumina® (16 μM)	AATTCTGC	GCAGAATT	GTTCCAAT
*Trans*NGS® UDI Indexed Adapter 48 for Illumina® (16 μM)	GGCCTCAT	ATGAGGCC	ACCTTGGC
*Trans*NGS® UDI Indexed Adapter 49 for Illumina® (16 μM)	ATCTTAGT	ACTAAGAT	ATATCTCG
*Trans*NGS® UDI Indexed Adapter 50 for Illumina® (16 μM)	GCTCCGAC	GTCGGAGC	GCGCTCTA
*Trans*NGS® UDI Indexed Adapter 51 for Illumina® (16 μM)	ATACCAAG	CTTGGTAT	AACAGGTT
*Trans*NGS® UDI Indexed Adapter 52 for Illumina® (16 μM)	GCGTTGGA	TCCAACGC	GGTGAACC
*Trans*NGS® UDI Indexed Adapter 53 for Illumina® (16 μM)	CTTCACGG	CCGTGAAG	CAACAATG
*Trans*NGS® UDI Indexed Adapter 54 for Illumina® (16 μM)	TCCTGTAA	TTACAGGA	TGGTGGCA
*Trans*NGS® UDI Indexed Adapter 55 for Illumina® (16 μM)	AGAATGCC	GGCATTCT	AGGCAGAG
*Trans*NGS® UDI Indexed Adapter 56 for Illumina® (16 μM)	GAGGCATT	AATGCCTC	GAATGAGA
*Trans*NGS® UDI Indexed Adapter 57 for Illumina® (16 μM)	CCTCGGTA	TACCGAGG	TGCGGCGT
*Trans*NGS® UDI Indexed Adapter 58 for Illumina® (16 μM)	TTCTAACG	CGTTAGAA	CATAATAC
*Trans*NGS® UDI Indexed Adapter 59 for Illumina® (16 μM)	ATGAGGCT	AGCCTCAT	GATCTATC
*Trans*NGS® UDI Indexed Adapter 60 for Illumina® (16 μM)	GCAGAATC	GATTCTGC	AGCTCGCT

Adapter Name	Single i5 Index sequence		Single i7 Index sequence
	Miseq, HiSeq 2000/ 2500, NovaSeq v1.0	MiniSeq, NextSeq, HiSeq 3000/4000, NovaSeq v1.5	All Illumina Systems
*Trans*NGS® UDI Indexed Adapter 61 for Illumina® (16 μM)	CACTACGA	TCGTAGTG	CGGAACTG
*Trans*NGS® UDI Indexed Adapter 62 for Illumina® (16 μM)	TGTCGTAG	CTACGACA	TAAGGTCA
*Trans*NGS® UDI Indexed Adapter 63 for Illumina® (16 μM)	ACCACTTA	TAAGTGGT	TTGCCTAG
*Trans*NGS® UDI Indexed Adapter 64 for Illumina® (16 μM)	GTTGTCCG	CGGACAAC	CCATTCGA
*Trans*NGS® UDI Indexed Adapter 65 for Illumina® (16 μM)	ATCCATAT	ATATGGAT	ACACTAAG
*Trans*NGS® UDI Indexed Adapter 66 for Illumina® (16 μM)	GCTTGCGC	GCGCAAGC	GTGTCGGA
*Trans*NGS® UDI Indexed Adapter 67 for Illumina® (16 μM)	AGTATCTT	AAGATACT	TTCCTGTT
*Trans*NGS® UDI Indexed Adapter 68 for Illumina® (16 μM)	GACGCTCC	GGAGCGTC	CCTTCACC
*Trans*NGS® UDI Indexed Adapter 69 for Illumina® (16 μM)	CATGCCAT	ATGGCATG	GCCACAGG
*Trans*NGS® UDI Indexed Adapter 70 for Illumina® (16 μM)	TGCATTGC	GCAATGCA	ATTGTGAA
*Trans*NGS® UDI Indexed Adapter 71 for Illumina® (16 μM)	ATTGGAAC	GTTCCAAT	ACTCGTGT
*Trans*NGS® UDI Indexed Adapter 72 for Illumina® (16 μM)	GCCAAGGT	ACCTTGGC	GTCTACAC
*Trans*NGS® UDI Indexed Adapter 73 for Illumina® (16 μM)	CGAGATAT	ATATCTCG	CAATTAAC
*Trans*NGS® UDI Indexed Adapter 74 for Illumina® (16 μM)	TAGAGCGC	GCGCTCTA	TGGCCGGT
*Trans*NGS® UDI Indexed Adapter 75 for Illumina® (16 μM)	AACCTGTT	AACAGGTT	AGTACTCC
*Trans*NGS® UDI Indexed Adapter 76 for Illumina® (16 μM)	GGTTCACC	GGTGAACC	GACGTCTT
*Trans*NGS® UDI Indexed Adapter 77 for Illumina® (16 μM)	CATTGTTG	CAACAATG	TGCGAGAC
*Trans*NGS® UDI Indexed Adapter 78 for Illumina® (16 μM)	TGCCACCA	TGGTGGCA	CATAGAGT
*Trans*NGS® UDI Indexed Adapter 79 for Illumina® (16 μM)	CTCTGCCT	AGGCAGAG	ACAGGCGC
*Trans*NGS® UDI Indexed Adapter 80 for Illumina® (16 μM)	TCTCATTC	GAATGAGA	GTGAATAT
*Trans*NGS® UDI Indexed Adapter 81 for Illumina® (16 μM)	ACGCCGCA	TGCGGCGT	AACTGTAG
*Trans*NGS® UDI Indexed Adapter 82 for Illumina® (16 μM)	GTATTATG	CATAATAC	GGTCACGA
*Trans*NGS® UDI Indexed Adapter 83 for Illumina® (16 μM)	GATAGATC	GATCTATC	CTGCTTCC
*Trans*NGS® UDI Indexed Adapter 84 for Illumina® (16 μM)	AGCGAGCT	AGCTCGCT	TCATCCTT
*Trans*NGS® UDI Indexed Adapter 85 for Illumina® (16 μM)	CAGTTCCG	CGGAACTG	AGGTTATA
*Trans*NGS® UDI Indexed Adapter 86 for Illumina® (16 μM)	TGACCTTA	TAAGGTCA	GAACCGCG
*Trans*NGS® UDI Indexed Adapter 87 for Illumina® (16 μM)	CTAGGCAA	TTGCCTAG	CTCACCAA
*Trans*NGS® UDI Indexed Adapter 88 for Illumina® (16 μM)	TCGAATGG	CCATTCGA	TCTGTTGG
*Trans*NGS® UDI Indexed Adapter 89 for Illumina® (16 μM)	CTTAGTGT	ACACTAAG	TATCGCAC
*Trans*NGS® UDI Indexed Adapter 90 for Illumina® (16 μM)	TCCGACAC	GTGTCGGA	CGCTATGT
*Trans*NGS® UDI Indexed Adapter 91 for Illumina® (16 μM)	AACAGGAA	TTCCTGTT	GTATGTTC
*Trans*NGS® UDI Indexed Adapter 92 for Illumina® (16 μM)	GGTGAAGG	CCTTCACC	ACGCACCT
*Trans*NGS® UDI Indexed Adapter 93 for Illumina® (16 μM)	CCTGTGGC	GCCACAGG	TACTCATA
*Trans*NGS® UDI Indexed Adapter 94 for Illumina® (16 μM)	TTCACAAT	ATTGTGAA	CGTCTGCG
*Trans*NGS® UDI Indexed Adapter 95 for Illumina® (16 μM)	ACACGAGT	ACTCGTGT	TCGATATC
*Trans*NGS® UDI Indexed Adapter 96 for Illumina® (16 μM)	GTGTAGAC	GTCTACAC	CTAGCGCT

Index selection strategy

Illumina sequencers use a green laser to sequence bases G/ T and a red laser to sequence bases A/ C. To ensure the success of sequencing, color balance in each sequencing cycle is required. Therefore, it is necessary to make sure that both green-laser bases and red-laser bases are included in each sequencing cycle when pooling multiple indexes. During sequencing, if the number of Indexes required in one lane is less than 24, there are multiple Index combinations. The recommended available combinations are as follow:

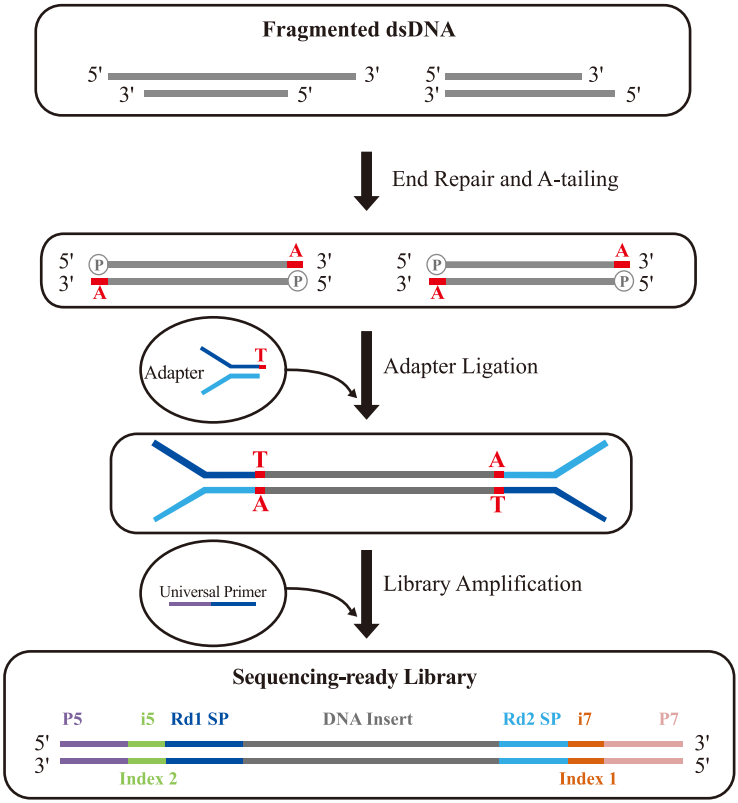
2 libraries: Index 1 and 2; Inex 25 and 26, Index 49 and 50.

3 libraries: Index 3 ,4 and 5; Index 27, 28 and 29; Inex51, 52 and 53.

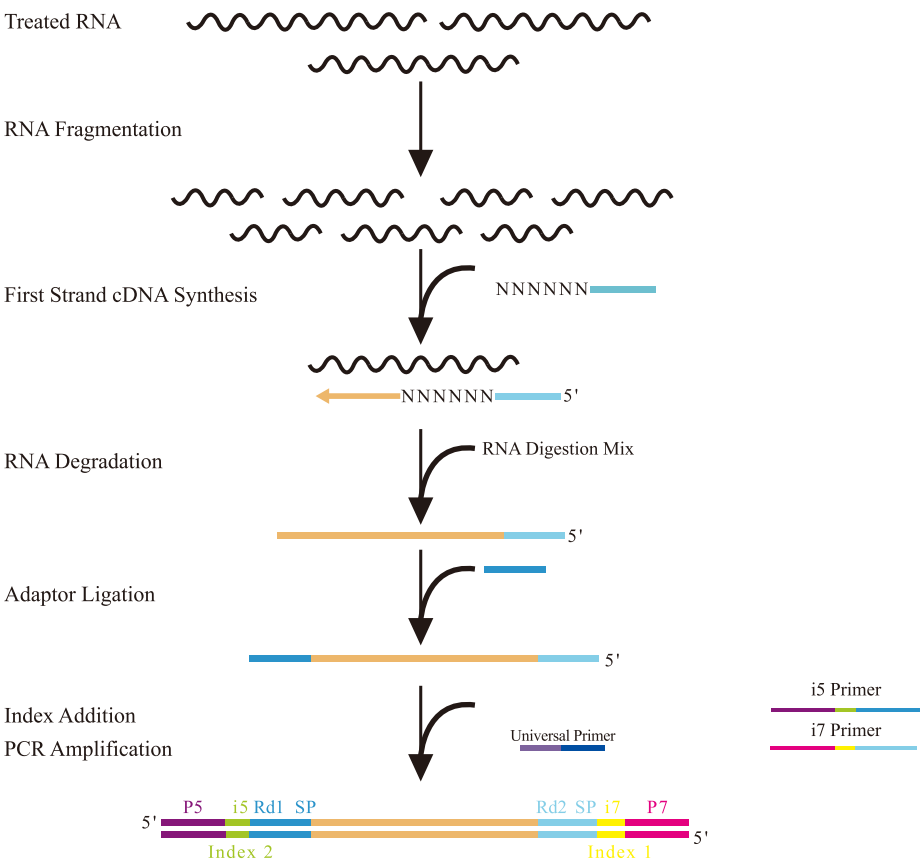
4 libraries: Index 1, 2, 3 and 4； Index 27, 28, 29 and 30; Index 43, 44, 45 and 46.

Appendix

Workflow demonstrating the use of this kit with *Trans*NGS® DNA Library Prep Kit for Illumina®:



Workflow demonstrating the use of this kit with *Trans*NGS® Fast RNA-Seq Library Prep Kit for Illumina®



If this kit is used with *Trans*NGS® DNA Library Prep Kit for Illumina® or *Trans*NGS® Fast RNA-Seq Library Prep Kit for Illumina®, the resulting library has the following sequences:

5'-AATGATACGGCGACCACCGAGATCTACAC[i5]ACACTCTTTCCCTACACGACGCTCTTCCGATCT-XXXXXXXX

-AGATCGGAAGAGCACACGTCTGAACTCCAGTCAC[i7]ATCTCGTATGCCGTCTTCTGCTTG-3'

i5: Index 2, 8 bases;

i7: Index 1, 8 bases;

i5: Index 2, 8 bases;

i7: Index 1, 8 bases;

-XXXXXXXX-: inserted sequence.

For research use only, not for clinical diagnosis.

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