

TransNGS® Single Index Primers Kit for Illumina® (Set 1)

Cat. No. KI201

Storage: at -20°C for two years

Description

TransNGS® Single Index Primers Kit for Illumina® contains three sets of primers. Each set of primers contains 12 unique bar coded i7 primers and one set of TransNGS® Universal Primer for Illumina®.

Application

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

Kit Contents

Component	KI201-01 (48 rxns)	KI201-02 (96 rxns)
TransNGS® Universal Primer for Illumina® (10 µM)	120 µl	240 µl
TransNGS® Index 1 Primer for Illumina® (10 µM)	10 µl	20 µl
TransNGS® Index 2 Primer for Illumina® (10 µM)	10 µl	20 µl
TransNGS® Index 3 Primer for Illumina® (10 µM)	10 µl	20 µl
TransNGS® Index 4 Primer for Illumina® (10 µM)	10 µl	20 µl
TransNGS® Index 5 Primer for Illumina® (10 µM)	10 µl	20 µl
TransNGS® Index 6 Primer for Illumina® (10 µM)	10 µl	20 µl
TransNGS® Index 7 Primer for Illumina® (10 µM)	10 µl	20 µl
TransNGS® Index 8 Primer for Illumina® (10 µM)	10 µl	20 µl
TransNGS® Index 9 Primer for Illumina® (10 µM)	10 µl	20 µl
TransNGS® Index 10 Primer for Illumina® (10 µM)	10 µl	20 µl
TransNGS® Index 11 Primer for Illumina® (10 µM)	10 µl	20 µl
TransNGS® Index 12 Primer for Illumina® (10 µM)	10 µl	20 µl

Primers Sequence

TransNGS® Universal Primer for Illumina®:

5'-AATGATACGCGACCGAGATCTACACTCTTCCCTACACGACGCTCTCCGATC-s-T-3'

-s- indicates phosphorothioate bond.

i7 Primer

Component	Primers Sequence	Index Sequence Read
<i>TransNGS</i> [®] Index 1 Primer for Illumina [®]	5'-CAAGCAGAAGACGGCATACGAGAT <u>CGTGAT</u> GT GACTGGAGTTCAGACGTGTGCTCTTCCGATC-s-T-3'	A T C A C G
<i>TransNGS</i> [®] Index 2 Primer for Illumina [®]	5'-CAAGCAGAAGACGGCATACGAGAT <u>ACATCG</u> GT GACTGGAGTTCAGACGTGTGCTCTTCCGATC-s-T-3'	C G A T G T
<i>TransNGS</i> [®] Index 3 Primer for Illumina [®]	5'-CAAGCAGAAGACGGCATACGAGAT <u>GCCTAA</u> GT GACTGGAGTTCAGACGTGTGCTCTTCCGATC-s-T-3'	T T A G G C
<i>TransNGS</i> [®] Index 4 Primer for Illumina [®]	5'-CAAGCAGAAGACGGCATACGAGAT <u>TGGTCA</u> GT GACTGGAGTTCAGACGTGTGCTCTTCCGATC-s-T-3'	T G A C C A
<i>TransNGS</i> [®] Index 5 Primer for Illumina [®]	5'-CAAGCAGAAGACGGCATACGAGAT <u>CACTGT</u> GT GACTGGAGTTCAGACGTGTGCTCTTCCGATC-s-T-3'	A C A G T G
<i>TransNGS</i> [®] Index 6 Primer for Illumina [®]	5'-CAAGCAGAAGACGGCATACGAGAT <u>ATTGGC</u> GT GACTGGAGTTCAGACGTGTGCTCTTCCGATC-s-T-3'	G C C A A T
<i>TransNGS</i> [®] Index 7 Primer for Illumina [®]	5'-CAAGCAGAAGACGGCATACGAGAT <u>GATCTG</u> GT GACTGGAGTTCAGACGTGTGCTCTTCCGATC-s-T-3'	C A G A T C
<i>TransNGS</i> [®] Index 8 Primer for Illumina [®]	5'-CAAGCAGAAGACGGCATACGAGAT <u>TCAAGT</u> GT GACTGGAGTTCAGACGTGTGCTCTTCCGATC-s-T-3'	A C T T G A
<i>TransNGS</i> [®] Index 9 Primer for Illumina [®]	5'-CAAGCAGAAGACGGCATACGAGAT <u>CTGATC</u> GT GACTGGAGTTCAGACGTGTGCTCTTCCGATC-s-T-3'	G A T C A G
<i>TransNGS</i> [®] Index 10 Primer for Illumina [®]	5'-CAAGCAGAAGACGGCATACGAGAT <u>AAGCTA</u> GT GACTGGAGTTCAGACGTGTGCTCTTCCGATC-s-T-3'	T A G C T T
<i>TransNGS</i> [®] Index 11 Primer for Illumina [®]	5'-CAAGCAGAAGACGGCATACGAGAT <u>GTAGCC</u> GT GACTGGAGTTCAGACGTGTGCTCTTCCGATC-s-T-3'	G G C T A C
<i>TransNGS</i> [®] Index 12 Primer for Illumina [®]	5'-CAAGCAGAAGACGGCATACGAGAT <u>TACAAG</u> GT GACTGGAGTTCAGACGTGTGCTCTTCCGATC-s-T-3'	C T T G T A

Index Pooling Guidelines

G/T is detected by a green laser and A/C is detected by a red laser when using Illumina sequencer. Color balance is required during the process of sequencing. It is necessary to make sure that both green laser bases and red laser bases are included at each cycle when pooling indexes.

Various pooling can be executed when fewer than 12 indexes are pooled in a lane for sequencing. Some recommended pooling are shown below:

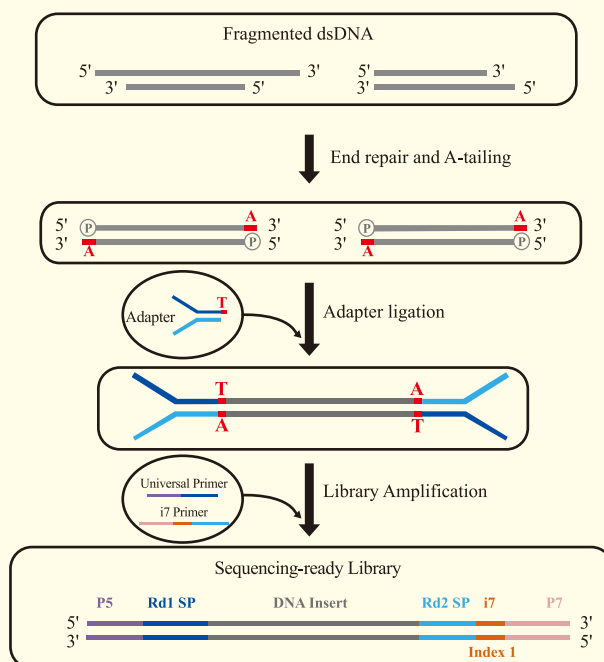
2 libraries: Index 6 and 12;

3 libraries: Index 4, 6 and 12;

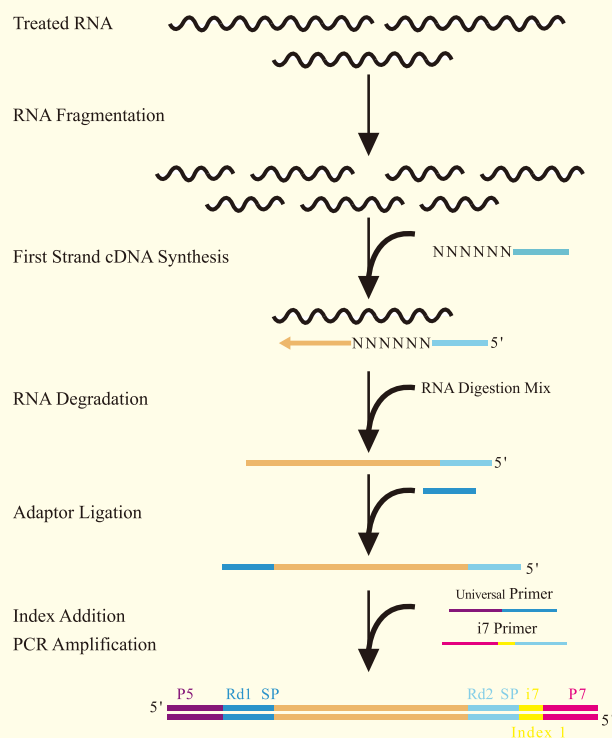
4 libraries: Index 4, 6, 8 and 12.

Appendix

Library construction with *TransNGS*[®] DNA Library Prep Kit for Illumina[®]:



Library construction with *TransNGS*[®] Stranded RNA-Seq Library Prep Kit for Illumina[®]:



If this kit is used with *TransNGS*[®] DNA Library Prep Kit for Illumina[®] or *TransNGS*[®] Stranded RNA-Seq Library Prep Kit for Illumina[®], the resulting library has the following sequences:

5'-AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTTCCGATCT-XXXXXXXX-AGATCG
GAAGAGCACACGTCTGAACTCCAGTCAC[i7]ATCTCGTATGCCGTCTTCTGCTTG-3'

i7: Index 1, 6 bases;

-XXXXXXXX-: insert DNA.

FOR RESEARCH USE ONLY