*Trans*NGS® Dual Index Primers Kit for Illumina®

Cat. No. KI231
Storage: at -20 °C for two years

Description

*Trans*NGS® Dual Index Primers Kit for Illumina® is suitable for multiplex next-generation sequencing library preparations on the Illumina platform. This kit provides 8 different i5 primers (i501-i508) and 12 different i7 primers (i701-i712). Ninety-six uniquely dual-indexed libraries can be prepared using this kit.

Application

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

Kit Contents

Component		KI231-01 (48 rxns)	KI231-02 (96 rxns)
i5 Primer	*Trans*NGS® i501 Primer (10 μM)	15 μl	30 μl
	*Trans*NGS® i502 Primer (10 μM)	15 μl	30 μl
	*Trans*NGS® i503 Primer (10 μM)	15 μl	30 μl
	*Trans*NGS® i504 Primer (10 μM)	15 μl	30 μl
	*Trans*NGS® i505 Primer (10 μM)	15 μl	30 μl
	*Trans*NGS® i506 Primer (10 μM)	15 μl	30 μl
	*Trans*NGS® i507 Primer (10 μM)	15 μl	30 μl
	*Trans*NGS® i508 Primer (10 μM)	15 μl	30 μl
i7 Primer	*Trans*NGS® i701 Primer (10 μM)	10 μl	20 μl
	*Trans*NGS® i702 Primer (10 μM)	10 μl	20 μl
	*Trans*NGS® i703 Primer (10 μM)	10 μl	20 μl
	*Trans*NGS® i704 Primer (10 μM)	10 μl	20 μl
	*Trans*NGS® i705 Primer (10 μM)	10 μl	20 μl
	*Trans*NGS® i706 Primer (10 μM)	10 μl	20 μl
	*Trans*NGS® i707 Primer (10 μM)	10 μl	20 μl
	*Trans*NGS® i708 Primer (10 μM)	10 μl	20 μl
	*Trans*NGS® i709 Primer (10 μM)	10 μl	20 μl
	*Trans*NGS® i710 Primer (10 μM)	10 μl	20 μl
	*Trans*NGS® i711 Primer (10 μM)	10 μl	20 μl
	*Trans*NGS® i712 Primer (10 μM)	10 μl	20 μl

Primers Sequence

*Trans*NGS® i501-i508 Primer:
5′-AATGATACGGCGACCACCGAGATCTACAC[i5]ACACTCTTTCCCTACACGACGCTCTTCCGATC-s-T-3′
*Trans*NGS® i701-i712 Primer:
5′-CAAGCAGAAGACGGCATACGAGAT[i7]GTGACTGGAGTTCAGACGTGTGCTCTTCCGATC-s-T-3′
-s- indicates phosphorothioate bond.
i5: Index 2, 8 bases;
i7: Index 1, 8 bases.

Component		i5 Bases in Index Primer	Index Sequence Read	
			MiSeq, HiSeq 2000/2500	MiniSeq, NextSeq, HiSeq 3000/4000
i5 Primer	*Trans*NGS® i501 Primer	TATAGCCT	T A T A G C C T	A G G C T A T A
	*Trans*NGS® i502 Primer	ATAGAGGC	A T A G A G G C	G C C T C T A T
	*Trans*NGS® i503 Primer	CCTATCCT	C C T A T C C T	A G G A T A G G
	*Trans*NGS® i504 Primer	GGCTCTGA	G G C T C T G A	T C A G A G C C
	*Trans*NGS® i505 Primer	AGGCGAAG	A G G C G A A G	C T T C G C C T
	*Trans*NGS® i506 Primer	TAATCTTA	T A A T C T T A	T A A G A T T A
	*Trans*NGS® i507 Primer	CAGGACGT	C A G G A C G T	A C G T C C T G
	*Trans*NGS® i508 Primer	GTACTGAC	G T A C T G A C	G T C A G T A C

Component		i7 Bases in Index Primer	Index Sequence Read
i7 Primer	*Trans*NGS® i701 Primer	CGAGTAAT	A T T A C T C G
	*Trans*NGS® i702 Primer	TCTCCGGA	T C C G G A G A
	*Trans*NGS® i703 Primer	AATGAGCG	C G C T C A T T
	*Trans*NGS® i704 Primer	GGAATCTC	G A G A T T C C
	*Trans*NGS® i705 Primer	TTCTGAAT	A T T C A G A A
	*Trans*NGS® i706 Primer	ACGAATTC	G A A T T C G T
	*Trans*NGS® i707 Primer	AGCTTCAG	C T G A A G C T
	*Trans*NGS® i708 Primer	GCGCATTA	T A A T G C G C
	*Trans*NGS® i709 Primer	CATAGCCG	C G G C T A T G
	*Trans*NGS® i710 Primer	TTCGCGGA	T C C G C G A A
	*Trans*NGS® i711 Primer	GCGCGAGA	T C T C G C G C
	*Trans*NGS® i712 Primer	CTATCGCT	A G C G A T A G

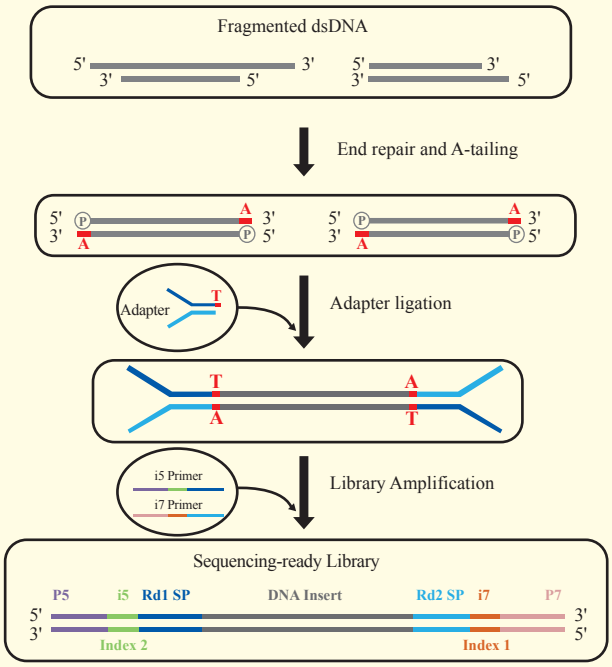
Index Pooling Guidelines

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.

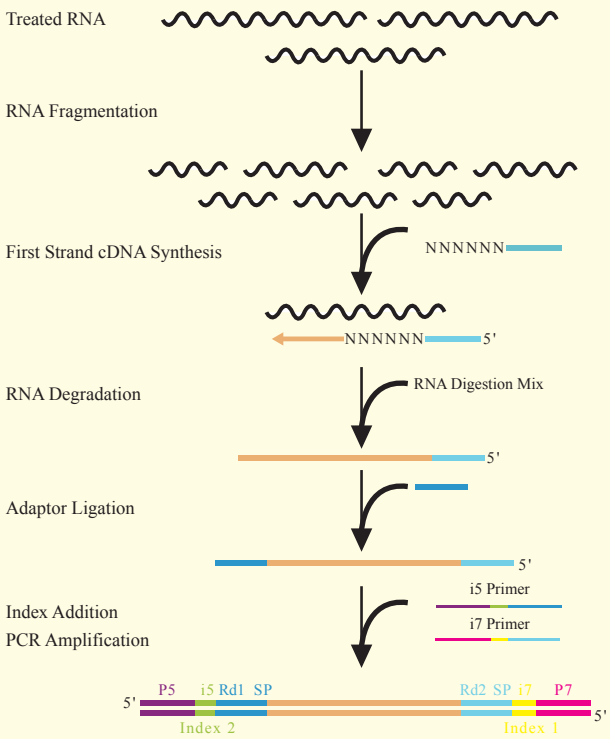
If there are two i5 indexes used in a lane for sequencing, following indexes groups are recommended: i501 and i502, i503 and i504; i505 and i506; i507 and i508. If there are two i7 indexes used in a lane for sequencing, following indexes groups are recommended: i701 and i702, i703 and i704; i705 and i706; i707 and i708; i709 and i710; i711 and i712.

Appendix

Library construction with *Trans*NGS® DNA Library Prep Kit for Illumina®: (there are still some Chinese characters)



Library construction with *Trans*NGS® Stranded RNA-Seq Library Prep Kit for Illumina®:



If this kit is used with *Trans*NGS® DNA Library Prep Kit for Illumina® or *Trans*NGS® Stranded 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;

-XXXXXXXX-: insert DNA.

FOR RESEARCH USE ONLY