

TruePrep Index Kit V2 for Illumina®

Catalog # TD202



Version 5.1

Vazyme biotech co., ltd.

Introduction

TruePrep Index Kit V2 for Illumina® is specially designed for TruePrep DNA Library Prep Kit V2 for Illumina® (Vazyme, #TD501, #TD502, #TD503). It contains 8 kinds of N5XX and 12 kinds of N7XX, providing 96 kinds of different dual-indexed adapter combinations.

Contents of Kit

	Components	TD202 (96 rxn) *	Index Sequence	Index Name	
N5XX	N501	120 µl	TAGATCGC	Index 2 (i5)	■
	N502	120 µl	CTCTCTAT		■
	N503	120 µl	TATCCTCT		■
	N504	120 µl	AGAGTAGA		■
	N505	120 µl	GTAAGGAG		■
	N506	120 µl	ACTGCATA		■
	N507	120 µl	AAGGAGTA		■
	N508	120 µl	CTAAGCCT		■
N7XX	N701	80 µl	TAAGGCGA	Index 1 (i7)	■
	N702	80 µl	CGTACTAG		■
	N703	80 µl	AGGAGAA		■
	N704	80 µl	TCCTGAGC		■
	N705	80 µl	GGACTCCT		■
	N706	80 µl	TAGGCATG		■
	N707	80 µl	CTCTCTAC		■
	N708	80 µl	CAGAGAGG		■
	N709	80 µl	GCTACGCT		■
	N710	80 µl	CGAGGCTG		■
	N711	80 µl	AAGAGGCA		■
	N712	80 µl	GTAGAGGA		■

Storage

All the components can be stored at -20°C.

Application

Special for TruePrep DNA Library Prep Kit V2 for Illumina® (Vazyme, #TD501, #TD502, #TD503), providing 96 kinds of different dual-indexed adapter combinations.

Quality Control

16-Hour Incubation: A 50 µl reaction system containing 5 µl of Oligos and 1 µg of Hind III- λ DNA incubated at 37°C for 16 hours resulted in no band degraded detected by agarose gel electrophoresis. A 50 µl reaction system containing 5 µl of Oligos and 1 µg of T3 DNA incubated at 37°C for 16 hours resulted in no band degraded detected by agarose gel electrophoresis.

Endonuclease Activity: A 50 µl reaction system containing 5 µl of Oligos and 1 µg of φX174RF I DNA incubated at 37°C for 4 hours resulted in < 10% conversion to RF II analyzed by agarose gel electrophoresis.



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For research use only, not for use in diagnostic procedures.

Protocol

Strategy of Index Selection

Green fluorescent labeled dG/dT and red fluorescent labeled dC/dA were used in Illumina. To ensure successful sequencing, both green and red fluorescent signal must be detected in each sequencing cycle. Therefore, it is important to keep balance of the green and red fluorescence signals when choosing the Indices.

The following are some recommended combination of the Indices:

Number of Sample(s)	N7XX Option [Index 1 (i7)]	N5XX Option [Index 2 (i5)]
1	Any N7XX	Any N5XX
2	Option 1: N701 and N702	Any N5XX
	Option 2: N702 and N704	Any N5XX
3	Option 1: N701, N702, and N704	Any N5XX
	Option 2: N703, N705, and N706	Any N5XX
4-5	Option 1: N701, N702, N704, and any other N7XX	Any N5XX
	Option 2: N703, N705, N706, and any other N7XX	Any N5XX
6	N701, N702, N703, N704, N705, and N706	Any N5XX
7-12	Option 1: N701-N706 and any other N7XX	Option 1: N501 and N502
		Option 2: N503 and N504
		Option 3: N505 and N506
	Option 2: N701, N702, N704, and any other N7XX	Option 1: N501 and N502
		Option 2: N503 and N504
		Option 3: N505 and N506
Option 3: N703, N705, N706, and any other N7XX	Option 1: N501, N502, and any other N5XX	
	Option 2: N503, N504, and any other N5XX	
	Option 3: N505, N506, and any other N5XX	

The combinations of indices listed above are only some examples of acceptable selections. In practice, you can check the sequence of each index (refer to the first table) to make sure that there are two kinds of fluorescence signals at each base position, exemplified in the following table.

Examples of Right Selection				Examples of Wrong Selection							
Number of Samples	Sample ID	N7XX [Index 1 (i7)]	N5XX [Index 2 (i5)]	Number of Samples	Sample ID	N7XX [Index 1 (i7)]	N5XX [Index 2 (i5)]				
4	1	N705	GGACTCCT	N503	TATCCTCT	4	1	N705	GGACTCCT	N502	CTCTCTAT
	2	N706	TAGGCATG	N503	TATCCTCT		2	N706	TAGGCATG	N502	CTCTCTAT
	3	N701	TAAGGCGA	N504	AGAGTAGA		3	N701	TAAGGCGA	N503	TATCCTCT
	4	N702	CGTACTAG	N504	AGAGTAGA		4	N702	CGTACTAG	N503	TATCCTCT
		√√√√√√√√	√√√√√√√√			√√√√√√√√	√√√√xxxx				

√: have both green and red fluorescence signals.

x: Missing green or red fluorescence signals.