

TruePrep Index Kit V2 for Illumina



TD202

Version 22.1

Product Description

TruePrep Index Kit V2 for Illumina is specially designed for TruePrep DNA Library Prep Kit V2 for Illumina (Vazyme #TD501-503) and TruePrep Flexible DNA Library Prep Kit for Illumina (Vazyme #TD504). It contains 8 kinds of N5XX and 12 kinds of N7XX, providing 96 kinds of different dual-indexed adapter combinations. All the reagents provided in the kit have undergone rigorous quality control and functional testing to ensure the optimal stability and repeatability of library preparation.

Components

Components	Specifications (192 rxns)	Index Sequence	Sample Sheet		Index Name		
			NovaSeq 1.0, MiSeq, HiSeq 2000/2500	NovaSeq 1.5, MiniSeq, NextSeq, HiSeq 3000/4000, HiSeq X			
N5XX	N501	120 µl	TAGATCGC	TAGATCGC	GCGATCTA	Index 2 (i5)	■
	N502	120 µl	CTCTCTAT	CTCTCTAT	ATAGAGAG		■
	N503	120 µl	TATCCTCT	TATCCTCT	AGAGGATA		■
	N504	120 µl	AGAGTAGA	AGAGTAGA	TCTACTCT		■
	N505	120 µl	GTAAGGAG	GTAAGGAG	CTCCTTAC		■
	N506	120 µl	ACTGCATA	ACTGCATA	TATGCAGT		■
	N507	120 µl	AAGGAGTA	AAGGAGTA	TACTCCTT		■
	N508	120 µl	CTAAGCCT	CTAAGCCT	AGGCTTAG		■
N7XX	N701	80 µl	TAAGGCGA	TAAGGCGA	TAAGGCGA	Index 1 (i7)	■
	N702	80 µl	CGTACTAG	CGTACTAG	CGTACTAG		■
	N703	80 µl	AGGCAGAA	AGGCAGAA	AGGCAGAA		■
	N704	80 µl	TCCTGAGC	TCCTGAGC	TCCTGAGC		■
	N705	80 µl	GGACTCCT	GGACTCCT	GGACTCCT		■
	N706	80 µl	TAGGCATG	TAGGCATG	TAGGCATG		■
	N707	80 µl	CTCTCTAC	CTCTCTAC	CTCTCTAC		■
	N708	80 µl	CAGAGAGG	CAGAGAGG	CAGAGAGG		■
	N709	80 µl	GCTACGCT	GCTACGCT	GCTACGCT		■
	N710	80 µl	CGAGGCTG	CGAGGCTG	CGAGGCTG		■
	N711	80 µl	AAGAGGCA	AAGAGGCA	AAGAGGCA		■
	N712	80 µl	GTAGAGGA	GTAGAGGA	GTAGAGGA		■

▲ N5XX and N7XX were respectively used in 5 µl volumes in individual DNA libraries;

▲ Colors noted in the product components table represent the separate cover colors in each group.

Storage

Store at -30 ~ -15°C and transport at ≤0°C.

Application

Special for TruePrep DNA Library Prep Kit V2 for Illumina (Vazyme #TD501-TD503), TruePrep Flexible DNA Library Prep Kit for Illumina (Vazyme #TD504).

Notes

For research use only. Not for use in diagnostic procedures.

1. The N5XX index sequences of NovaSeq 1.5, MiniSeq, NextSeq, HiSeq 3000/4000, HiSeq X sequencing platforms need to be input in the sample sheet after reverse complementation;
2. Pay attention to prevent crosstalk between different indexes.



Library Structure and Sequences

The structure of DNA library constructed by Trueprep Index Kit V2 for Illumina is as follows:

5' - **Index 2 (i5)** - Insert DNA Sequence - **Index 1 (i7)** - 3'

The kit contains 8 kinds of N5XX and 12 kinds of N7XX, which can be combined into 96 different double ended index combinations for distinguishing different samples during high-throughput sequencing.

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	Any N5XX
		Option 1: N501 and N502
		Option 2: N503 and N504
	Option 2: N701, N702, N704, and any other N7XX	Option 3: N505 and N506
		Option 1: N501 and N502
		Option 2: N503 and N504
>12	N701-N706 and any other N7XX	Option 3: N505 and N506
		Option 1: N501, N502, and any other N5XX
		Option 2: N503, N504, 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
		√ √ √ √ √ √ √	√ √ √ √ √ √ √			√ √ √ √ √ √ √	√ √ √ √ × × ×

▲ √: Have both green and red fluorescence signals.

×: Missing green or red fluorescence signals.

