

TruePrep Index Kit V2 for Illumina

#Cat: NB-54-0194

Size: 192rxns

Product Description

TruePrep Index Kit V2 for Illumina is specially designed for TruePrep DNA Library Prep Kit V2 for Illumina (Neo Biotech#NB-54-0380), TruePrep Flexible DNA Library Prep Kit for Illumina (Neo Biotech # NB-54-0382). 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, iSeq 100		
N5XX	N502	120 µl	CTCTCTAT	CTCTCTAT	ATAGAGAG	■
	N503	120 µl	TATCCTCT	TATCCTCT	AGAGGATA	■
	N505	120 µl	GTAAGGAG	GTAAGGAG	CTCCTTAC	■
	N506	120 µl	ACTGCATA	ACTGCATA	TATGCAGT	Index 2 (i5) ■
	N507	120 µl	AAGGAGTA	AAGGAGTA	TACTCCTT	■
	N508	120 µl	CTAAGCCT	CTAAGCCT	AGGCTTAG	■
	N509	120 µl	TTCTAGCT	TTCTAGCT	AGCTAGAA	■
	N510	120 µl	CCTAGAGT	CCTAGAGT	ACTCTAGG	■
N7XX	N701	80 µl	TAAGGCGA	TAAGGCGA	TAAGGCGA	■
	N702	80 µl	CGTACTAG	CGTACTAG	CGTACTAG	■
	N703	80 µl	AGGCAGAA	AGGCAGAA	AGGCAGAA	■
	N705	80 µl	GGA CTCCT	GGA CTCCT	GGA CTCCT	■
	N706	80 µl	TAGGCATG	TAGGCATG	TAGGCATG	■
	N707	80 µl	CTCTCTAC	CTCTCTAC	CTCTCTAC	■
	N711	80 µl	AAGAGGCA	AAGAGGCA	AAGAGGCA	Index 1 (i7) ■
	N712	80 µl	GTAGAGGA	GTAGAGGA	GTAGAGGA	■
	N714	80 µl	ATCTCAGG	ATCTCAGG	ATCTCAGG	■
	N715	80 µl	ACTCGCTA	ACTCGCTA	ACTCGCTA	■
	N716	80 µl	GGAGCTAC	GGAGCTAC	GGAGCTAC	■
	N717	80 µl	CGATCAGT	CGATCAGT	CGATCAGT	■

▲ The usage of N5XX and N7XX were respectively 5 µl in individual DNA library.

▲ The color marked in the components table represents the color of each tube cover.

Storage

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

Application

Special for TruePrep DNA Library Prep Kit V2 for Illumina (Neo Biotech # NB-54-0380), TruePrep Flexible DNA Library Prep Kit for Illumina (Neo Biotech # NB-54-0382).

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, iSeq 100 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 indexes.

Number of Sample(s)	N7XX Option [Index 1 (i7)]	N5XX Option [Index 2 (i5)]
1	Any N7XX	Any N5XX
2	N701 and N702	Any N5XX
3	Option 1: N701, N702 and N703	Any N5XX
	Option 2: N705, N706 and N707	Any N5XX
4 - 5	Option 1: N701, N702, N703 and any other N7XX	Any N5XX
	Option 2: N705, N706, N707 and any other N7XX	Any N5XX
6	N701, N702, N703, N705, N706 and N707	Any N5XX
7 - 12	Option 1: N701, N702, N703, N705, N706, N707 and any other N7XX	Any N5XX
	Option 2: N701, N702, N703 and any other N7XX	N505 and N506
	Option 3: N705, N706, N707 and any other N7XX	N505 and N506
>12	N701, N702, N703, N705, N706, N707 and any other N7XX	N505, N506 and any other N5XX

The combinations of indexes 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	N505 GTAAGGAG	4	1	N705 GGACTCCT	N502 CTCTCTAT
	2	N706 TAGGCATG	N505 GTAAGGAG		2	N706 TAGGCATG	N502 CTCTCTAT
	3	N701 TAAGGCGA	N506 ACTGCATA		3	N701 TAAGGCGA	N503 TATCCTCT
	4	N702 CGTACTAG	N506 ACTGCATA		4	N702 CGTACTAG	N503 TATCCTCT
		√ √ √ √ √ √ √	√ √ √ √ √ √ √			√ √ √ √ √ √ √	√ √ √ √ × × ×

▲ √: Have both green and red fluorescence signals.

×: Missing green or red fluorescence signals.