

NGS Combinatorial Dual Index

Primers Kit for Illumina (Set I)

NGS Bipartite Search Junction Primer Kit-Illumina (Set I)

Catalog number: N666055 (96 rxns)

Storage conditions: All components are stored at -20°C and transported in ice packs. Do not store at temperatures above room temperature and avoid repeated freezing and thawing.

Products content

Component	96 rxns
Adaptor for Illumina	480 µl
i7 Index Primers D701-D712	20 µl×12
i5 Index Primers D501-D508	30 µl×8

Products Introduction

The NGS Combinatorial Dual Index Primers Kit for Illumina (Set I) is an index primer kit for library construction on the Illumina high-throughput sequencing platform. This kit contains the Universal Junction DNA Adaptor for Illumina, 8 i5 Index Primers, and 12 i7 Index Primers for use with the Fast DNA Library Prep Set for Illumina & MGI and the NGS Frag Fast DNA Library Prep Set for Illumina. Library Prep Set for Illumina, 8 i5 Index Primers, and 12 i7 Index Primers can be used with the Fast DNA Library Prep Set for Illumina & MGI and the NGS Frag Fast DNA Library Prep Set for Illumina to build up to 96 different combinations of bipartite Index-tagged second generation sequencing libraries. The prepared libraries can be used for sequencing on NovaSeq, MiSeq, HiSeq 2000/2500/3000/4000, MiniSeq and NextSeq sequencing platforms. All the reagents provided in the kit have been subjected to stringent quality control and functional validation to maximize the stability and reproducibility of the library construction.

Scope of application

For use with Illumina High-Throughput Sequencing Platform Double-Ended Index Labeled Library Construction. Recommended for use with Fast DNA Library Prep Set for Illumina & MGI and NGS Frag Fast DNA Library Prep Set for Illumina.

product components

use	individual parts	CW3042S (96)	cw3042m (192)
Illumina Universal Connectors	DNA Adaptor for	480 µl	2 × 480 µl
i7 Index Primer	D701	20 µl	40 µl
i7 Index Primer	D702	20 µl	40 µl
i7 Index Primer	D703	20 µl	40 µl

i7 Index Primer	D704	20 µl	40 µl
i7 Index Primer	D705	20 µl	40 µl
i7 Index Primer	D706	20 µl	40 µl
i7 Index Primer	D707	20 µl	40 µl
i7 Index Primer	D708	20 µl	40 µl
i7 Index Primer	D709	20 µl	40 µl
i7 Index Primer	D710	20 µl	40 µl
i7 Index Primer	D711	20 µl	40 µl
i7 Index Primer	D712	20 µl	40 µl
i5 Index Primer	D501	30 µl	60 µl
i5 Index Primer	D502	30 µl	60 µl
i5 Index Primer	D503	30 µl	60 µl
i5 Index Primer	D504	30 µl	60 µl
i5 Index Primer	D505	30 µl	60 µl
i5 Index Primer	D506	30 µl	60 µl
i5 Index Primer	D507	30 µl	60 µl
i5 Index Primer	D508	30 µl	60 µl

Note: The amount of individual library DNA Adapter for Illumina used depends on the amount of starting template input. i7 Index Primers and i5 Index Primers both use 2.5 µl.

Sequence information

DNA Adapter for Illumina

5´-/Phos/ GATCGGAAGAGCACACGTCTGAACTCCAGT*C -3´

5´-ACACTCTTCCCTACACGACGCTCTTCCGATC*T-3´

(* denotes thiolation, Phos denotes phosphorylation)

i5 Index Primers 5´-AATGATACGGCGACCACCGAGATCTACAC

[i5]ACACTCTTCCCTACACGACGCTCTTCCGATC*T-3´

i7 Index Primers

5´-CAAGCAGAAGACGGCATAACGAGAT

[i7]GTGACTGGAGTTCAGACGTGTGCTCTTCCGATC*T-3´.

* denotes thio)

[i5] denotes an 8 bp i5 Index sequence and [i7] denotes an 8 bp i7 Index sequence.

The Index name corresponding to each primer, the Index sequence contained in the primer, and the Index entered in the Sample Sheet during sequencing.

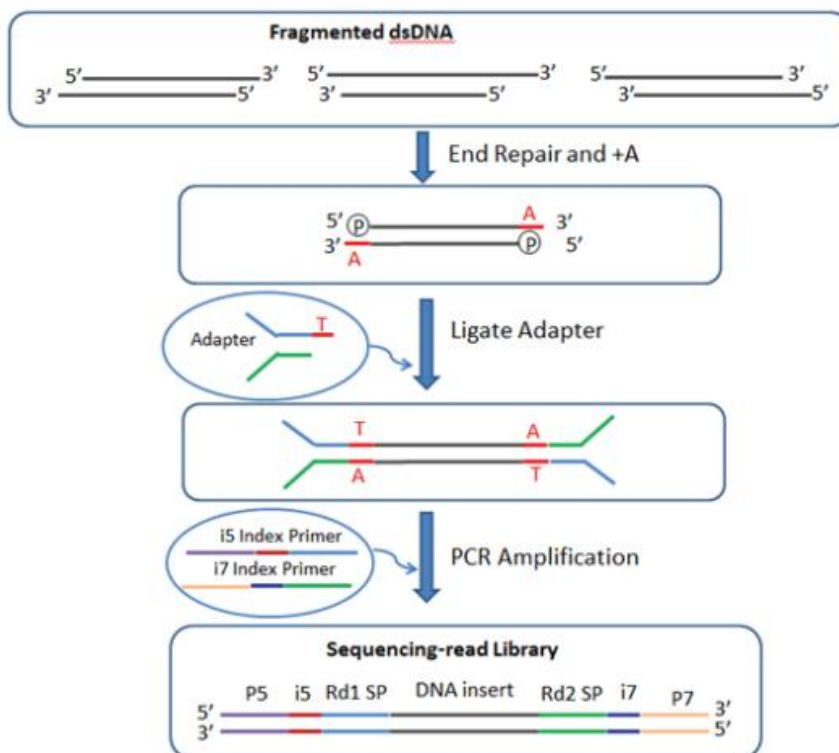
		i5 Bases for Sample Sheet	i5 Bases for Sample Sheet
i5 Index Name	Index Bases in i5 Index Primer	NovaSeq, MiSeq, HiSeq 2000/2500	MiniSeq, NextSeq, HiSeq 3000/4000
D501	TATAGCCT	TATAGCCT	AGGCTATA
D502	ATAGAGGC	ATAGAGGC	GCCTCTAT
D503	CCTATCCT	CCTATCCT	AGGATAGG
D504	GGCTCTGA	GGCTCTGA	TCAGAGCC
D505	AGGCGAAG	AGGCGAAG	CTTCGCCT
D506	TAATCTTA	TAATCTTA	TAAGATTA
D507	CAGGACGT	CAGGACGT	ACGTCCTG
D508	GTAAGTAC	GTAAGTAC	GTCAGTAC

The sequence information is shown in the table below:

i7 Index Name	Index Bases in i7 Index Primer	i7 Bases for Sample Sheet
D701	CGAGTAAT	ATTACTCG
D702	TCTCCGGA	TCCGGAGA
D703	AATGAGCG	CGCTCATT
D704	GGAATCTC	GAGATTCC
D705	TTCTGAAT	ATTCAGAA
D706	ACGAATTC	GAATTCGT
D707	AGCTTCAG	CTGAAGCT
D708	GCGCATT	TAATGCGC
D709	CATAGCCG	CGGCTATG
D710	TTCGCGGA	TCCGCGAA
D711	GCGCGAGA	TCTCGCGC
D712	CTATCGCT	AGCGATAG

Library building process and library structure

This kit is used in conjunction with Fast DNA Library Prep Set for Illumina & MGI and NGS Frag Fast DNA Library Prep Set for Illumina, and the library construction process is summarized below:



The structure of the constructed library is as follows

5'- AATGATACGGCGACCACCGAGATCTACAC [i5]

ACACTCTTTCCCTACACGACGCTCTTCCGATCT [DNA insert]

AGATCGGAAGAGCACACGTCTGAACTCCAGTCAC [i7] ATCTCGTATGCCGTCTTCTGCTTG-3'

i5: i5 index, 8 bases i7: i7 index, 8 bases DNA insert: inserted target sequencing sequence

