

# Illumina Adapter Sequences

This document provides the nucleotide sequences that comprise Illumina oligonucleotides used in Illumina sequencing technologies. These sequences are provided for the sole purpose of understanding and publishing the results of your sequencing experiments.

### Proprietary to Illumina

The oligonucleotides are proprietary to Illumina. Their manufacture, use, and sequence information are protected by intellectual property, including issued or pending patents, copyright, and trade secrets. Illumina reserves all rights in the oligonucleotides and their sequence information, except for the strictly limited permissions as follows.

Most Illumina oligonucleotides are specially modified and purified in a proprietary manner to enable and optimize their performance with Illumina instruments. Illumina is the only authorized supplier of the oligos.

Illumina has no control over the quality, composition, or compatibility of reagents from unauthorized suppliers. We cannot troubleshoot or provide other support for experiments performed with unauthorized reagents, and we cannot guarantee the performance of Illumina products when used with such reagents.

#### **Limited Permissions**

Your permission to copy or distribute sequence information is limited to within your institution for use only with Illumina instruments and associated equipment, consumables, and software. You may not copy or distribute this information outside your institution, except under the following circumstances.

- You may distribute outside your institution and publish the sequence information in presentations, manuscripts, or publications authored by you, if the following copyright notice is included:
  - Oligonucleotide sequences © 2018 Illumina, Inc. All rights reserved.
- If you modify or adapt any sequence information contained in this letter and distribute or publish the modified sequences, you must include the following copyright notice:

Oligonucleotide sequences © 2018 Illumina, Inc. All rights reserved. Derivative works created by Illumina customers are authorized for use with Illumina instruments and products only. All other uses are strictly prohibited.

For all other uses of the sequence information or for questions on custom oligonucleotides, please contact Illumina to discuss the permissions or licenses that might be required.

-1



# Contents

Introduction	5
AmpliSeq for Illumina Panels	5
Index 1 (i7) Adapters	5
Index 2 (i5) Adapter	6
TruSight Amplicon Panels	6
Index 1 (i7) Adapters	6
Index 2 (i5) Adapter	7
TruSight Cardio	7
Index 1 (i7) Adapters	7
Index 2 (i5) Adapter	8
TruSight One	8
Index 1 (i7) Adapters	8
Index 2 (i5) Adapter	9
TruSight Rapid Capture	9
Index 1 (i7) Adapters	9
Index 2 (i5) Adapter	11
TruSight Tumor 15	11
Index 1 (i7) Adapters	11
Index 2 (i5) Adapter	12
TruSight Tumor 170	12
Index 1 (i7) Adapters (RNA)	12
Index 2 (i5) Adapter (RNA)	13
Index 1 (i7) Adapters (DNA)	13
Index 2 (i5) Adapter (DNA)	14
TruSight RNA Pan-Cancer Panel	15
Universal Adapter	15
Index Adapters	15
Illumina Nextera Adapters	17
Nextera Transposase Adapters	17
Nextera Index Kit – PCR Primers	17
Nextera Index Kit - Index 1 (i7) Adapters	17
Nextera Index Kit - Index 2 (i5) Adapters	18
Nextera XT Index Kit v2 - Index 1 (i7) Adapters	18
Nextera XT Index Kit v2 - Index 2 (i5) Adapters	19
Nextera DNA CD Indexes - Index 1 (i7) Adapters	20
Nextera DNA CD Indexes - Index 2 (i5) Adapters	21



IDT for Illumina UD Indexes	21
TruSeq CD Indexes	24
D501-D508 Adapters	24
D701-D712 Adapters	24
Index 1 (i7) Adapters	25
Index 2 (i5) Adapters	25
TruSeq Single Indexes	26
TruSeq Universal Adapter	26
TruSeq Index Adapters (Index 1–27)	26
TruSeq Amplicon Kits	27
Index 1 (i7) Adapters	27
Index 2 (i5) Adapter	28
TruSeq DNA Methylation	28
Index PCR Primers	28
Index Adapters	28
TruSeq Ribo Profile	29
3' Adapter	29
Forward PCR Primer	29
Index PCR Primers	29
Index Adapters	29
TruSeq Synthetic Long-Read DNA	30
Long Reads Adapter	30
TruSeq Small RNA	30
RNA 5' Adapter (RA5)	30
RNA 3' Adapter (RA3)	30
Stop Oligo (STP)	30
RNA RT Primer (RTP)	30
RNA PCR Index Primers (RPI1-RPI48)	30
TruSeq Targeted RNA Expression	33
Index 1 (i7) Adapters	33
Index 2 (i5) Adapter	35
Process Controls for TruSeq Kits	36
Nextera DNA Sample Prep Kit (Epicentre Biotechnologies)	41
Transposon Sequences	41
Adapters (showing optional bar code)	41
PCR Primers	41
Oligonucleotide Sequences for Genomic DNA	41
Adapters	42



PCR Primers	42
Genomic DNA Sequencing Primer	42
Oligonucleotide Sequences for Paired End DNA	42
PE Adapters	42
PE PCR Primer 1.0	42
PE PCR Primer 2.0	42
PE Read 1 Sequencing Primer	42
PE Read 2 Sequencing Primer	42
Oligonucleotide Sequences for the Multiplexing Sample Prep Oligo	Only Kit42
Multiplexing Adapters	42
Multiplexing PCR Primer 1.0	43
Multiplexing PCR Primer 2.0	43
Multiplexing Read 1 Sequencing Primer	43
Multiplexing Index Read Sequencing Primer	43
Multiplexing Read 2 Sequencing Primer	43
PCR Primer Index Sequences 1–12	43
Oligonucleotide Sequences for the v1 and v1.5 Small RNA Kits	
RT Primer	44
5' RNA Adapter	44
3' RNA Adapter	44
v1.5 Small RNA 3' Adapter	44
Small RNA PCR Primer 1	44
Small RNA PCR Primer 2	44
Small RNA Sequencing Primer	44
Revision History	45



#### Introduction

This document lists the index adapter sequences for Illumina library prep kits. The sequences are grouped into sections for AmpliSeq for Illumina, TruSight kits, Nextera kits, and TruSeq kits. An appendix lists TruSeq controls and information for legacy Illumina kits.

The dual-indexing workflow on the following systems requires the reverse complement of the Index 2 (i5) adapter sequence: iSeq 100, MiniSeq, NextSeq 550, NextSeq 500, HiSeq 4000, and HiSeq 3000.

- If you are manually creating a sample sheet for these systems, include the reverse complement of the sequence.
- If you are using Illumina Experiment Manager (IEM), BaseSpace Sequence Hub Prep tab, or Local Run Manager to record the adapter sequences, the software automatically creates the reverse complement.

# AmpliSeq for Illumina Panels

AmpliSeq Comprehensive Cancer Panel for Illumina, AmpliSeq Cancer HotSpot Panel v2 for Illumina, AmpliSeq Focus Panel for Illumina, AmpliSeq Comprehensive Panel v3 for Illumina, AmpliSeq BRCA Panel for Illumina, AmpliSeq Immune Response Panel for Illumina, AmpliSeq Transcriptome Human Gene Expression Panel for Illumina, AmpliSeq Exome Panel for Illumina, AmpliSeq Custom DNA Panel for Illumina.

These combinatorial dual index adapters have been arranged in the plate to enforce the recommended pairing strategy.

#### Index 1 (i7) Adapters

CAAGCAGAAGACGGCATACGAGAT[i7]GTCTCGTGGGCTCGGAGATGTGTATAAGAGACAG

#### Index 2 (i5) Adapters

AATGATACGGCGACCACCGAGATCTACAC[i5]TCGTCGGCAGCGTCAGATGTGTATAAGAGACAG

#### Adapter Trimming

The following sequence is needed for adapter trimming.

CTGTCTCTTATACACATCT

i7 Index Name	i7 Bases for Sample Sheet
Q7005	GTGAATAT
Q7006	ACAGGCGC
Q7007	CATAGAGT
Q7008	TGCGAGAC
Q7015	TCTCTACT
Q7016	CTCTCGTC
Q7017	CCAAGTCT



i7 Index Name	i7 Bases for Sample Sheet
Q7018	TTGGACTC
Q7023	GCAGAATT
Q7024	ATGAGGCC
Q7025	ACTAAGAT
Q7026	GTCGGAGC

i5 Index Name	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, HiSeq 3000/4000, MiniSeq, NextSeq
Q5001	AGCGCTAG	CTAGCGCT
Q5002	GATATCGA	TCGATATC
Q5007	ACATAGCG	CGCTATGT
Q5008	GTGCGATA	TATCGCAC
Q5009	CCAACAGA	TCTGTTGG
Q5010	TTGGTGAG	CTCACCAA
Q5013	AACCGCGG	CCGCGGTT
Q5014	GGTTATAA	TTATAACC

# TruSight Amplicon Panels

Includes TruSight Myeloid Sequencing Panel and TruSight Tumor 26.

Index 1 (i7) Adapters

i7 Index Name	i7 Bases for Sample Sheet
A701	ATCACGAC
A702	ACAGTGGT
A703	CAGATCCA
A704	ACAAACGG
A705	ACCCAGCA



i7 Index Name	i7 Bases for Sample Sheet
A706	AACCCCTC
A707	CCCAACCT
A708	CACCACAC
A709	GAAACCCA
A710	TGTGACCA
A711	AGGGTCAA
A712	AGGAGTGG

i5 Index Name	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, MiniSeq, NextSeq, HiSeq 3000/4000
A501	TGAACCTT	AAGGTTCA
A502	TGCTAAGT	ACTTAGCA
A503	TGTTCTCT	AGAGAACA
A504	TAAGACAC	GTGTCTTA
A505	CTAATCGA	TCGATTAG
A506	CTAGAACA	TGTTCTAG
A507	TAAGTTCC	GGAACTTA
A508	TAGACCTA	TAGGTCTA

# TruSight Cardio

i7 Index Name	i7 Bases for Sample Sheet
N701	TAAGGCGA
N702	CGTACTAG
N703	AGGCAGAA
N704	TCCTGAGC



i7 Index Name	i7 Bases for Sample Sheet
N705	GGACTCCT
N706	TAGGCATG
N707	CTCTCTAC
N708	CAGAGAGG
N709	GCTACGCT
N710	CGAGGCTG
N711	AAGAGGCA
N712	GTAGAGGA

i5 Index Name	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, NextSeq, HiSeq 3000/4000
E502	CTCTCTAT	ATAGAGAG
E503	TATCCTCT	AGAGGATA
E504	AGAGTAGA	TCTACTCT
E505	GTAAGGAG	CTCCTTAC

# TruSight One

i7 Index Name	i7 Bases for Sample Sheet
N701	TAAGGCGA
N702	CGTACTAG
N703	AGGCAGAA
N704	TCCTGAGC
N705	GGACTCCT
N706	TAGGCATG
N707	CTCTCTAC
N708	CAGAGAGG



i7 Index Name	i7 Bases for Sample Sheet	
N709	GCTACGCT	
N710	CGAGGCTG	
N711	AAGAGGCA	
N712	GTAGAGGA	

i5 Index Name	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, MiniSeq, NextSeq, HiSeq 3000/4000
E502	CTCTCTAT	ATAGAGAG
E503	TATCCTCT	AGAGGATA
E504	AGAGTAGA	TCTACTCT
E505	GTAAGGAG	CTCCTTAC

# TruSight Rapid Capture

Includes TruSight Cancer and TruSight Inherited Disease.

i7 Index Name	i7 Bases for Sample Sheet
N701	TAAGGCGA
N702	CGTACTAG
N703	AGGCAGAA
N704	TCCTGAGC
N705	GGACTCCT
N706	TAGGCATG
N707	CTCTCTAC
N708	CAGAGAGG
N709	GCTACGCT
N710	CGAGGCTG



i7 Index Name	i7 Bases for Sample Sheet	
N711	AAGAGGCA	
N712	GTAGAGGA	



i5 Index Name	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, MiniSeq, NextSeq, HiSeq 3000/4000
E501	TAGATCGC	GCGATCTA
E502	CTCTCTAT	ATAGAGAG
E503	TATCCTCT	AGAGGATA
E504	AGAGTAGA	TCTACTCT
E505	GTAAGGAG	CTCCTTAC
E506	ACTGCATA	TATGCAGT
E507	AAGGAGTA	TACTCCTT
E508	CTAAGCCT	AGGCTTAG

# TruSight Tumor 15

i7 Index Name	i7 Bases for Sample Sheet
R701	ATCACG
R702	CGATGT
R703	TTAGGC
R704	TGACCA
R705	ACAGTG
R706	GCCAAT
R707	CAGATC
R708	ACTTGA
R709	GATCAG
R711	GGCTAC
R712	CTTGTA



i5 Index Name	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, MiniSeq, NextSeq, HiSeq 3000/4000
A501	TGAACCTT	AAGGTTCA
A502	TGCTAAGT	ACTTAGCA

# TruSight Tumor 170

# Index 1 (i7) Adapters (RNA)

i7 Index Name	i7 Bases for Sample Sheet	Index Primer
D702	TCCGGAGA	UP01
D707	CTGAAGCT	UP02
D717	CGTAGCTC	UP03
D706	GAATTCGT	UP04
D712	AGCGATAG	UP05
D724	GCGATTAA	UP06
D705	ATTCAGAA	UP07
D715	TTAATCAG	UP09
D713	GAATAATC	UP08
D703	CGCTCATT	UP10
D710	TCCGCGAA	UP11
D701	ATTACTCG	UP12
D716	ACTGCTTA	UP13
D714	ATGCGGCT	UP14
D718	GCCTCTCT	UP15
D719	GCCGTAGG	UP16



Index 2 (i5) Adapter (RNA)

i5 Index Name	i5 Bases for Sample Sheet	Index Primer
D503	AGGATAGG	UP01
D504	TCAGAGCC	UP02
D509	CATCCGAA	UP03
D510	TTATGAGT	UP04
D513	ACGAATAA	UP05
D515	GATCTGCT	UP06
D501	AGGCTATA	UP07
D502	GCCTCTAT	UP08
D505	CTTCGCCT	UP09
D506	TAAGATTA	UP10
D517	AGTAAGTA	UP11
D518	GACTTCCT	UP12
D511	AGAGGCGC	UP13
D512	TAGCCGCG	UP14
D514	TTCGTAGG	UP15
D516	CGCTCCGC	UP16

Index 1 (i7) Adapters (DNA)

i7 Index Name	i7 Bases for Sample Sheet	Index Primer
D721	CATCGAGG	CP01
D723	CTCGACTG	CP02
D709	CGGCTATG	CP03
D711	TCTCGCGC	CP04
D723	CTCGACTG	CP05
D709	CGGCTATG	CP06
D711	TCTCGCGC	CP07



i7 Index Name	i7 Bases for Sample Sheet	Index Primer
D721	CATCGAGG	CP08
D709	CGGCTATG	CP09
D711	TCTCGCGC	CP10
D721	CATCGAGG	CP11
D723	CTCGACTG	CP12
D711	TCTCGCGC	CP13
D721	CATCGAGG	CP14
D723	CTCGACTG	CP15
D709	CGGCTATG	CP16

# Index 2 (i5) Adapter (DNA)

i5 Index Name	i5 Bases for Sample Sheet	Index Primer	
D507	ACGTCCTG	CP01	
D508	GTCAGTAC	CP02	
D519	CCGTCGCC	CP03	
D520	GTCCGAGG	CP04	
D507	ACGTCCTG	CP05	
D507	ACGTCCTG	CP06	
D507	ACGTCCTG	CP07	
D508	GTCAGTAC	CP08	
D508	GTCAGTAC	CP09	
D508	GTCAGTAC	CP10	
D519	CCGTCGCC	CP11	
D519	CCGTCGCC	CP12	
D519	CCGTCGCC	CP13	
D520	GTCCGAGG	CP14	
D520	GTCCGAGG	CP15	



i5 Index Name	i5 Bases for Sample Sheet	Index Primer
D520	GTCCGAGG	CP16

# TruSight RNA Pan-Cancer Panel

#### Universal Adapter

- 5' AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTTCCGATCT
- Adapter, Index 1-12
- 5' GATCGGAAGAGCACACGTCTGAACTCCAGTCAC[ $\underline{6}$  bases]ATCTCGTATGCCGTCTTCTGCTTG Adapter, Index 13
- 5' GATCGGAAGAGCACACGTCTGAACTCCAGTCAC[ $\underline{6}$  bases]CAATCTCGTATGCCGTCTTCTGCTTG Adapter, Index 14
- 5' GATCGGAAGACCACGTCTGAACTCCAGTCAC[6 bases]GTATCTCGTATGCCGTCTTCTGCTTG Adapter, Index 15 and Index 21
- 5' GATCGGAAGAGCACACGTCTGAACTCCAGTCAC[6 bases]GAATCTCGTATGCCGTCTTCTGCTTG Adapter, Index 16 and Index 19
- 5' GATCGGAAGAGCACACGTCTGAACTCCAGTCAC[6 bases]CGATCTCGTATGCCGTCTTCTGCTTG Adapter, Index 18
- 5' GATCGGAAGAGCACACGTCTGAACTCCAGTCAC[ $\underline{6}$  bases]ACATCTCGTATGCCGTCTTCTGCTTG Adapter, Index 20 and Index 27
- 5' GATCGGAAGACCACGTCTGAACTCCAGTCAC[6 bases]TTATCTCGTATGCCGTCTTCTGCTTG Adapter, Index 22
- $5\,^{\prime}\,$  GATCGGAAGAGCACGTCTGAACTCCAGTCAC[  $\underline{6}\,$  bases] TAATCTCGTATGCCGTCTTCTGCTTG Adapter, Index 23 and Index 25
- 5' GATCGGAAGAGCACACGTCTGAACTCCAGTCAC[6 bases]ATATCTCGTATGCCGTCTTCTGCTTG

#### **Index Adapters**

In this set of adapters, index numbering does not include numbers 17, 24, or 26.

LT Set A/B	Index Name	6-Base Sequence for Sample Sheet
В	AR001	ATCACG
A	AR002	CGATGT
В	AR003	TTAGGC
A	AR004	TGACCA



LT Set A/B	Index Name	6-Base Sequence for Sample Sheet
A	AR005	ACAGTG
A	AR006	GCCAAT
A	AR007	CAGATC
В	AR008	ACTTGA
В	AR009	GATCAG
В	AR010	TAGCTT
В	AR011	GGCTAC
A	AR012	CTTGTA
A	AR013	AGTCAA
A	AR014	AGTTCC
A	AR015	ATGTCA
A	AR016	CCGTCC
A	AR018	GTCCGC
A	AR019	GTGAAA
В	AR020	GTGGCC
В	AR021	GTTTCG
В	AR022	CGTACG
В	AR023	GAGTGG
В	AR025	ACTGAT
В	AR027	ATTCCT



# Illumina Nextera Adapters

Nextera Transposase Adapters

(Used for Nextera tagmentation)

Read 1

5' TCGTCGGCAGCGTCAGATGTGTATAAGAGACAG

Read 2

5' GTCTCGTGGGCTCGGAGATGTGTATAAGAGACAG

Nextera Index Kit - PCR Primers

Index 1 Read

5' CAAGCAGAAGACGGCATACGAGAT[i7]GTCTCGTGGGCTCGG

Index 2 Read

 $\verb|5'| AATGATACGGCGACCACCGAGATCTACAC[i5]TCGTCGGCAGCGTC|$ 

Nextera Index Kit - Index 1 (i7) Adapters

Bases in Adapter	i7 Index Name	i7 Bases for Sample Sheet
TCGCCTTA	N701	TAAGGCGA
CTAGTACG	N702	CGTACTAG
TTCTGCCT	N703	AGGCAGAA
GCTCAGGA	N704	TCCTGAGC
AGGAGTCC	N705	GGACTCCT
CATGCCTA	N706	TAGGCATG
GTAGAGAG	N707	CTCTCTAC
CCTCTCTG	N708	CAGAGAGG
AGCGTAGC	N709	GCTACGCT
CAGCCTCG	N710	CGAGGCTG
TGCCTCTT	N711	AAGAGGCA
TCCTCTAC	N712	GTAGAGGA



### Nextera Index Kit - Index 2 (i5) Adapters

The i5 index names vary for different Nextera products.

- N50x—Nextera DNA
- S50x—Nextera XT
- E50x—Nextera Enrichment and Nextera Rapid Capture Enrichment

Bases in Adapter	i5 Index Name	i5 Bases for Sample Sheet iSeq, NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet MiniSeq, NextSeq, HiSeq 3000/4000
TAGATCGC	[N/S/E]501	TAGATCGC	GCGATCTA
CTCTCTAT	[N/S/E]502	CTCTCTAT	ATAGAGAG
TATCCTCT	[N/S/E]503	TATCCTCT	AGAGGATA
AGAGTAGA	[N/S/E]504	AGAGTAGA	TCTACTCT
GTAAGGAG	[N/S/E]505	GTAAGGAG	CTCCTTAC
ACTGCATA	[N/S/E]506	ACTGCATA	TATGCAGT
AAGGAGTA	[N/S/E]507	AAGGAGTA	TACTCCTT
CTAAGCCT	[N/S/E]508	CTAAGCCT	AGGCTTAG
GCGTAAGA	[N/S/E]517	GCGTAAGA	TCTTACGC

### Nextera XT Index Kit v2 - Index 1 (i7) Adapters

Bases in Adapter	i7 Index Name	i7 Bases for Sample Sheet
TCGCCTTA	N701	TAAGGCGA
CTAGTACG	N702	CGTACTAG
TTCTGCCT	N703	AGGCAGAA
GCTCAGGA	N704	TCCTGAGC
AGGAGTCC	N705	GGACTCCT
CATGCCTA	N706	TAGGCATG
GTAGAGAG	N707	CTCTCTAC
CAGCCTCG	N710	CGAGGCTG
TGCCTCTT	N711	AAGAGGCA
TCCTCTAC	N712	GTAGAGGA
TCATGAGC	N714	GCTCATGA



Bases in Adapter	i7 Index Name	i7 Bases for Sample Sheet
CCTGAGAT	N715	ATCTCAGG
TAGCGAGT	N716	ACTCGCTA
GTAGCTCC	N718	GGAGCTAC
TACTACGC	N719	GCGTAGTA
AGGCTCCG	N720	CGGAGCCT
GCAGCGTA	N721	TACGCTGC
CTGCGCAT	N722	ATGCGCAG
GAGCGCTA	N723	TAGCGCTC
CGCTCAGT	N724	ACTGAGCG
GTCTTAGG	N726	CCTAAGAC
ACTGATCG	N727	CGATCAGT
TAGCTGCA	N728	TGCAGCTA
GACGTCGA	N729	TCGACGTC

# Nextera XT Index Kit v2 - Index 2 (i5) Adapters

Bases in Adapter	i5 Index Name	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, MiniSeq, NextSeq, HiSeq 3000/4000
CTCTCTAT	S502	CTCTCTAT	ATAGAGAG
TATCCTCT	S503	TATCCTCT	AGAGGATA
GTAAGGAG	S505	GTAAGGAG	CTCCTTAC
ACTGCATA	S506	ACTGCATA	TATGCAGT
AAGGAGTA	S507	AAGGAGTA	TACTCCTT
CTAAGCCT	S508	CTAAGCCT	AGGCTTAG
CGTCTAAT	S510	CGTCTAAT	ATTAGACG
TCTCTCCG	S511	TCTCTCCG	CGGAGAGA
TCGACTAG	S513	TCGACTAG	CTAGTCGA
TTCTAGCT	S515	TTCTAGCT	AGCTAGAA



Bases in Adapter	i5 Index Name	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, MiniSeq, NextSeq, HiSeq 3000/4000
CCTAGAGT	S516	CCTAGAGT	ACTCTAGG
GCGTAAGA	S517	GCGTAAGA	TCTTACGC
CTATTAAG	S518	CTATTAAG	CTTAATAG
AAGGCTAT	S520	AAGGCTAT	ATAGCCTT
GAGCCTTA	S521	GAGCCTTA	TAAGGCTC
TTATGCGA	S522	TTATGCGA	TCGCATAA

# Nextera DNA CD Indexes - Index 1 (i7) Adapters

Bases in Adapter	i7 Index Name	i7 Bases for Sample Sheet
TCGCCTTA	H701	TAAGGCGA
CTAGTACG	H702	CGTACTAG
TTCTGCCT	H703	AGGCAGAA
AGGAGTCC	H705	GGACTCCT
CATGCCTA	H706	TAGGCATG
GTAGAGAG	H707	CTCTCTAC
CAGCCTCG	H710	CGAGGCTG
TGCCTCTT	H711	AAGAGGCA
TCCTCTAC	H712	GTAGAGGA
TCATGAGC	H714	GCTCATGA
AGGCTCCG	H720	CGGAGCCT
GAGCGCTA	H723	TAGCGCTC



### Nextera DNA CD Indexes - Index 2 (i5) Adapters

Bases in Adapter	i5 Index Name	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, MiniSeq, NextSeq, HiSeq 3000/4000
TATCCTCT	H503	TATCCTCT	AGAGGATA
GTAAGGAG	H505	GTAAGGAG	CTCCTTAC
ACTGCATA	H506	ACTGCATA	TATGCAGT
CGTCTAAT	H510	CGTCTAAT	ATTAGACG
TCGACTAG	H513	TCGACTAG	CTAGTCGA
CCTAGAGT	H516	CCTAGAGT	ACTCTAGG
GCGTAAGA	H517	GCGTAAGA	TCTTACGC
TTATGCGA	H522	TTATGCGA	TCGCATAA

### IDT for Illumina UD Indexes

These unique dual (UD) index adapters have been duplexed in the plate to enforce the recommended pairing strategy.

#### Index 1 (i7) Adapters

GATCGGAAGAGCACACGTCTGAACTCCAGTCAC[i7]ATCTCGTATGCCGTCTTCTGCTTG

#### Index2 (i5) Adapters

AATGATACGGCGACCACCGAGATCTACAC[i5]ACACTCTTTCCCTACACGACGCTCTTCCGATCT

UD Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, MiniSeq, NextSeq, HiSeq 3000/4000
UDI0001	CCGCGGTT	AGCGCTAG	CTAGCGCT
UDI0002	TTATAACC	GATATCGA	TCGATATC
UDI0003	GGACTTGG	CGCAGACG	CGTCTGCG
UDI0004	AAGTCCAA	TATGAGTA	TACTCATA
UDI0005	ATCCACTG	AGGTGCGT	ACGCACCT
UDI0006	GCTTGTCA	GAACATAC	GTATGTTC
UDI0007	CAAGCTAG	ACATAGCG	CGCTATGT
UDI0008	TGGATCGA	GTGCGATA	TATCGCAC



UD Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, MiniSeq, NextSeq, HiSeq 3000/4000
UDI0009	AGTTCAGG	CCAACAGA	TCTGTTGG
UDI0010	GACCTGAA	TTGGTGAG	CTCACCAA
UDI0011	TCTCTACT	CGCGGTTC	GAACCGCG
UDI0012	CTCTCGTC	TATAACCT	AGGTTATA
UDI0013	CCAAGTCT	AAGGATGA	TCATCCTT
UDI0014	TTGGACTC	GGAAGCAG	CTGCTTCC
UDI0015	GGCTTAAG	TCGTGACC	GGTCACGA
UDI0016	AATCCGGA	CTACAGTT	AACTGTAG
UDI0017	TAATACAG	ATATTCAC	GTGAATAT
UDI0018	CGGCGTGA	GCGCCTGT	ACAGGCGC
UDI0019	ATGTAAGT	ACTCTATG	CATAGAGT
UDI0020	GCACGGAC	GTCTCGCA	TGCGAGAC
UDI0021	GGTACCTT	AAGACGTC	GACGTCTT
UDI0022	AACGTTCC	GGAGTACT	AGTACTCC
UDI0023	GCAGAATT	ACCGGCCA	TGGCCGGT
UDI0024	ATGAGGCC	GTTAATTG	CAATTAAC
UDI0025	ACTAAGAT	AACCGCGG	CCGCGGTT
UDI0026	GTCGGAGC	GGTTATAA	TTATAACC
UDI0027	CTTGGTAT	CCAAGTCC	GGACTTGG
UDI0028	TCCAACGC	TTGGACTT	AAGTCCAA
UDI0029	CCGTGAAG	CAGTGGAT	ATCCACTG
UDI0030	TTACAGGA	TGACAAGC	GCTTGTCA
UDI0031	GGCATTCT	CTAGCTTG	CAAGCTAG
UDI0032	AATGCCTC	TCGATCCA	TGGATCGA
UDI0033	TACCGAGG	CCTGAACT	AGTTCAGG
UDI0034	CGTTAGAA	TTCAGGTC	GACCTGAA
UDI0035	AGCCTCAT	AGTAGAGA	TCTCTACT
UDI0036	GATTCTGC	GACGAGAG	CTCTCGTC
UDI0037	TCGTAGTG	AGACTTGG	CCAAGTCT
UDI0038	CTACGACA	GAGTCCAA	TTGGACTC
UDI0039	TAAGTGGT	CTTAAGCC	GGCTTAAG
UDI0040	CGGACAAC	TCCGGATT	AATCCGGA
UDI0041	ATATGGAT	CTGTATTA	TAATACAG



UD Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, MiniSeq, NextSeq, HiSeq 3000/4000
UDI0042	GCGCAAGC	TCACGCCG	CGGCGTGA
UDI0043	AAGATACT	ACTTACAT	ATGTAAGT
UDI0044	GGAGCGTC	GTCCGTGC	GCACGGAC
UDI0045	ATGGCATG	AAGGTACC	GGTACCTT
UDI0046	GCAATGCA	GGAACGTT	AACGTTCC
UDI0047	GTTCCAAT	AATTCTGC	GCAGAATT
UDI0048	ACCTTGGC	GGCCTCAT	ATGAGGCC
UDI0049	ATATCTCG	ATCTTAGT	ACTAAGAT
UDI0050	GCGCTCTA	GCTCCGAC	GTCGGAGC
UDI0051	AACAGGTT	ATACCAAG	CTTGGTAT
UDI0052	GGTGAACC	GCGTTGGA	TCCAACGC
UDI0053	CAACAATG	CTTCACGG	CCGTGAAG
UDI0054	TGGTGGCA	TCCTGTAA	TTACAGGA
UDI0055	AGGCAGAG	AGAATGCC	GGCATTCT
UDI0056	GAATGAGA	GAGGCATT	AATGCCTC
UDI0057	TGCGGCGT	CCTCGGTA	TACCGAGG
UDI0058	CATAATAC	TTCTAACG	CGTTAGAA
UDI0059	GATCTATC	ATGAGGCT	AGCCTCAT
UDI0060	AGCTCGCT	GCAGAATC	GATTCTGC
UDI0061	CGGAACTG	CACTACGA	TCGTAGTG
UDI0062	TAAGGTCA	TGTCGTAG	CTACGACA
UDI0063	TTGCCTAG	ACCACTTA	TAAGTGGT
UDI0064	CCATTCGA	GTTGTCCG	CGGACAAC
UDI0065	ACACTAAG	ATCCATAT	ATATGGAT
UDI0066	GTGTCGGA	GCTTGCGC	GCGCAAGC
UDI0067	TTCCTGTT	AGTATCTT	AAGATACT
UDI0068	CCTTCACC	GACGCTCC	GGAGCGTC
UDI0069	GCCACAGG	CATGCCAT	ATGGCATG
UDI0070	ATTGTGAA	TGCATTGC	GCAATGCA
UDI0071	ACTCGTGT	ATTGGAAC	GTTCCAAT
UDI0072	GTCTACAC	GCCAAGGT	ACCTTGGC
UDI0073	CAATTAAC	CGAGATAT	ATATCTCG
UDI0074	TGGCCGGT	TAGAGCGC	GCGCTCTA



UD Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, MiniSeq, NextSeq, HiSeq 3000/4000
UDI0075	AGTACTCC	AACCTGTT	AACAGGTT
UDI0076	GACGTCTT	GGTTCACC	GGTGAACC
UDI0077	TGCGAGAC	CATTGTTG	CAACAATG
UDI0078	CATAGAGT	TGCCACCA	TGGTGGCA
UDI0079	ACAGGCGC	CTCTGCCT	AGGCAGAG
UDI0080	GTGAATAT	TCTCATTC	GAATGAGA
UDI0081	AACTGTAG	ACGCCGCA	TGCGGCGT
UDI0082	GGTCACGA	GTATTATG	CATAATAC
UDI0083	CTGCTTCC	GATAGATC	GATCTATC
UDI0084	TCATCCTT	AGCGAGCT	AGCTCGCT
UDI0085	AGGTTATA	CAGTTCCG	CGGAACTG
UDI0086	GAACCGCG	TGACCTTA	TAAGGTCA
UDI0087	CTCACCAA	CTAGGCAA	TTGCCTAG
UDI0088	TCTGTTGG	TCGAATGG	CCATTCGA
UDI0089	TATCGCAC	CTTAGTGT	ACACTAAG
UDI0090	CGCTATGT	TCCGACAC	GTGTCGGA
UDI0091	GTATGTTC	AACAGGAA	TTCCTGTT
UDI0092	ACGCACCT	GGTGAAGG	CCTTCACC
UDI0093	TACTCATA	CCTGTGGC	GCCACAGG
UDI0094	CGTCTGCG	TTCACAAT	ATTGTGAA
UDI0095	TCGATATC	ACACGAGT	ACTCGTGT
UDI0096	CTAGCGCT	GTGTAGAC	GTCTACAC

# TruSeq CD Indexes

Combinatorial dual (CD) index adapters for use with TruSeq (formally known as TruSeq HT).

D501-D508 Adapters

 $\texttt{AATGATACGGCGACCACCGAGATCTACAC} [\,\underline{\textbf{i5}}\,] \texttt{ACACTCTTTCCCTACACGACGCTCTTCCGATCT}$ 

D701-D712 Adapters

 $\texttt{GATCGGAAGAGCACGTCTGAACTCCAGTCAC[}\,\underline{\textbf{i7}}\,]\,\texttt{ATCTCGTATGCCGTCTTCTGCTTG}$ 



Index 1 (i7) Adapters

i7 Index Name	i7 Bases for Sample Sheet
D701	ATTACTCG
D702	TCCGGAGA
D703	CGCTCATT
D704	GAGATTCC
D705	ATTCAGAA
D706	GAATTCGT
D707	CTGAAGCT
D708	TAATGCGC
D709	CGGCTATG
D710	TCCGCGAA
D711	TCTCGCGC
D712	AGCGATAG

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



# TruSeq Single Indexes

Index sequences are 6 bases as underlined. Enter the underlined 6 bases on the sample sheet.

TruSeq Universal Adapter

5' AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTTCCGATCT

TruSeq Index Adapters (Index 1–27)

Index numbers 17, 24, and 26 are reserved.

TruSeq Adapter, Index 1

- 5' GATCGGAAGACCACGTCTGAACTCCAGTCACATCACGATCTCGTATGCCGTCTTCTGCTTG
  TruSeq Adapter, Index 2
- 5' GATCGGAAGACCACGTCTGAACTCCAGTCAC<u>CGATGT</u>ATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 3
- 5' GATCGGAAGAGCACACGTCTGAACTCCAGTCAC<u>TTAGGC</u>ATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 4
- 5' GATCGGAAGACCACGTCTGAACTCCAGTCAC<u>TGACCA</u>ATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 5
- 5' GATCGGAAGACCACGTCTGAACTCCAGTCACACAGTGATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 6
- 5' GATCGGAAGACCACGTCTGAACTCCAGTCAC<u>GCCAAT</u>ATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 7
- 5' GATCGGAAGACCACGTCTGAACTCCAGTCACACTTGAATCTCGTATGCCGTCTTCTGCTTG
  TruSeq Adapter, Index 9
- 5' GATCGGAAGAGCACACGTCTGAACTCCAGTCACGATCAGATCTCGTATGCCGTCTTCTGCTTG
  TruSeq Adapter, Index 10
- 5 ' GATCGGAAGAGCACACGTCTGAACTCCAGTCAC $\underline{\text{TAGCTT}}$ ATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 11
- 5' GATCGGAAGACCACGTCTGAACTCCAGTCACGGCTACATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 12
- 5 ' GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 13
- ${\tt 5'} \ {\tt GATCGGAAGAGCACACGTCTGAACTCCAGTCACAGTCAACAATCTCGTATGCCGTCTTCTGCTTG}$



TruSeq Adapter, Index 14

- 5' GATCGGAAGACCACGTCTGAACTCCAGTCAC<u>AGTTCC</u>GTATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 15
- 5' GATCGGAAGACCACGTCTGAACTCCAGTCACATGTCAGAATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 16
- 5' GATCGGAAGACCACGTCTGAACTCCAGTCAC<u>CCGTCC</u>CGATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 18
- 5' GATCGGAAGAGCACACTCTGAACTCCAGTCACGTCCGCACATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 19
- 5 ' GATCGGAAGACCACGTCTGAACTCCAGTCACGTGAAACGATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 20
- $\begin{tabular}{l} 5' & GATCGGAAGACCACGTCTGAACTCCAGTCAC\underline{GTGGCC}\\ TTATCTCGTATGCCGTCTTCTGCTTG\\ TruSeq & Adapter, & Index 21 \end{tabular}$
- 5 ' GATCGGAAGACCACGTCTGAACTCCAGTCACGTTTCGGAATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 22
- 5 ' GATCGGAAGACCACGTCTGAACTCCAGTCACCGTACGTAATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 23
- 5' GATCGGAAGACCACGTCTGAACTCCAGTCACGAGTGGATATCTCGTATGCCGTCTTCTGCTTG
  TruSeq Adapter, Index 25
- 5 ' GATCGGAAGACCACGTCTGAACTCCAGTCACACTGATATATCTCGTATGCCGTCTTCTGCTTG TruSeq Adapter, Index 27
- 5' GATCGGAAGACCACACTCTGAACTCCAGTCACATTCCTTTATCTCGTATGCCGTCTTCTGCTTG

# TruSeq Amplicon Kits

Includes TruSeq Custom Amplicon 1.5, TruSeq Amplicon Cancer Panel, and TruSeq Custom Amplicon Low Input.

Index 1 (i7) Adapters

i7 Index Name	i7 Bases for Sample Sheet
A701	ATCACGAC
A702	ACAGTGGT
A703	CAGATCCA
A704	ACAAACGG



i7 Index Name	i7 Bases for Sample Sheet
A705	ACCCAGCA
A706	AACCCCTC
A707	CCCAACCT
A708	CACCACAC
A709	GAAACCCA
A710	TGTGACCA
A711	AGGGTCAA
A712	AGGAGTGG

i5 Index Name	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, MiniSeq, NextSeq, HiSeq 3000/4000
A501	TGAACCTT	AAGGTTCA
A502	TGCTAAGT	ACTTAGCA
A503	TGTTCTCT	AGAGAACA
A504	TAAGACAC	GTGTCTTA
A505	CTAATCGA	TCGATTAG
A506	CTAGAACA	TGTTCTAG
A507	TAAGTTCC	GGAACTTA
A508	TAGACCTA	TAGGTCTA

# TruSeq DNA Methylation

#### **Index PCR Primers**

5' CAAGCAGAAGACGCCATACGAGAT[6 bases]GTGACTGGAGTTCAGACGTGTGCTCTTCCGATCT

### **Index Adapters**

Index Name	6-Base Sequence for Sample Sheet	
Index 1	ATCACG	



Index Name	6-Base Sequence for Sample Sheet
Index 2	CGATGT
Index 3	TTAGGC
Index 4	TGACCA
Index 5	ACAGTG
Index 6	GCCAAT
Index 7	CAGATC
Index 8	ACTTGA
Index 9	GATCAG
Index 10	TAGCTT
Index 11	GGCTAC
Index 12	CTTGTA

# TruSeq Ribo Profile

### 3' Adapter

5' AGATCGGAAGAGCACACGTCT

#### Forward PCR Primer

5' ATGATACGGCGACCACCGAGATCTACACGTTCAGAGTTCTACAGTCCGACG

#### Index PCR Primers

5' CAAGCAGAAGACGGCATACGAGAT[6 bases]GTGACTGGAGTTCAGACGTGTGCTCTTCCGATCT

### **Index Adapters**

Index Name	Six-Base Sequence for Sample Sheet
A001	ATCACG
A002	CGATGT
A003	TTAGGC
A004	TGACCA
A005	ACAGTG



Index Name	Six-Base Sequence for Sample Sheet
A006	GCCAAT
A007	CAGATC
A008	ACTTGA
A009	GATCAG
A010	TAGCTT
A011	GGCTAC
A012	CTTGTA

# TruSeq Synthetic Long-Read DNA

Double-stranded DNA adapter containing long-range PCR primer binding site, sequencing primer binding site, and end marker sequence.

Long Reads Adapter

5' CCGGTTCTTCCCTGCCGAACCCTATCTTCGTCGGCAGCGTCAGATGTGTATAAGAGACAGTACGCTTGCAT

# TruSeq Small RNA

RNA 5' Adapter (RA5)

5' GUUCAGAGUUCUACAGUCCGACGAUC

RNA 3' Adapter (RA3)

5' TGGAATTCTCGGGTGCCAAGG

Stop Oligo (STP)

5' GAAUUCCACCACGUUCCCGUGG

RNA RT Primer (RTP)

5' GCCTTGGCACCCGAGAATTCCA

RNA PCR Primer (RP1)

5' AATGATACGGCGACCACCGAGATCTACACGTTCAGAGTTCTACAGTCCGA

RNA PCR Index Primers (RPI1–RPI48)

Index sequence is 6 bases as underlined. Enter the underlined 6 bases on the sample sheet. Index sequences are read in the reverse complement in TruSeq small RNA libraries.



RNA PCR Primer, Index 1 (RPI1)

- 5 ' CAAGCAGAAGACGCATACGAGAT<u>CGTGAT</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 2 (RPI2)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>ACATCG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 3 (RPI3)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>GCCTAA</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 4 (RPI4)
- 5 ' CAAGCAGAAGACGGCATACGAGAT<u>TGGTCA</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 5 (RPI5)
- 5 ' CAAGCAGAAGACGGCATACGAGAT<u>CACTGT</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 6 (RPI6)
- 5 ' CAAGCAGAAGACGCATACGAGAT<u>ATTGGC</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 7 (RPI7)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>GATCTG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 8 (RPI8)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>TCAAGT</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 9 (RPI9)
- 5 ' CAAGCAGAAGACGGCATACGAGAT<u>CTGATC</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 10 (RPI10)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>AAGCTA</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 11 (RPI11)
- 5 ' CAAGCAGAAGACGCATACGAGAT<u>GTAGCC</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 12 (RPI12)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>TACAAG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 13 (RPI13)
- 5' CAAGCAGAAGACGCATACGAGAT<u>TTGACT</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 14 (RPI14)
- 5 ' CAAGCAGAAGACGGCATACGAGATGGAACTGTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 15 (RPI15)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>TGACAT</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 16 (RPI16)
- 5 ' CAAGCAGAAGACGGCATACGAGAT<u>GGACGG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 17 (RPI17)
- 5' CAAGCAGAAGACGCATACGAGATCTCTACGTGACTGGAGTTCCTTGGCACCCGAGAATTCCA



RNA PCR Primer, Index 18 (RPI18)

- 5' CAAGCAGAAGACGCATACGAGAT<u>GCGGAC</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 19 (RPI19)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>TTTCAC</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 20 (RPI20)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>GGCCAC</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 21 (RPI21)
- 5 ' CAAGCAGAAGACGCATACGAGAT<u>CGAAAC</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 22 (RPI22)
- 5 ' CAAGCAGAAGACGGCATACGAGAT<u>CGTACG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 23 (RPI23)
- 5 ' CAAGCAGAAGACGCATACGAGAT<u>CCACTC</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 24 (RPI24)
- 5' CAAGCAGAAGACGCATACGAGAT<u>GCTACC</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 25 (RPI25)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>ATCAGT</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 26 (RPI26)
- 5 ' CAAGCAGAAGACGCATACGAGATGCTCATGTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 27 (RPI27)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>AGGAAT</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 28 (RPI28)
- 5 ' CAAGCAGAAGACGGCATACGAGAT<u>CTTTTG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 29 (RPI29)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>TAGTTG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 30 (RPI30)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>CCGGTG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 31 (RPI31)
- 5 ' CAAGCAGAAGACGGCATACGAGAT<u>ATCGTG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 32 (RPI32)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>TGAGTG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 33 (RPI33)
- 5 ' CAAGCAGAAGACGGCATACGAGAT<u>CGCCTG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 34 (RPI34)
- 5' CAAGCAGAAGACGCCATACGAGATGCCATGGTGACTGGAGTTCCTTGGCACCCGAGAATTCCA



RNA PCR Primer, Index 35 (RPI35)

- 5' CAAGCAGAAGACGGCATACGAGAT<u>AAAATG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 36 (RPI36)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>TGTTGG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 37 (RPI37)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>ATTCCG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 38 (RPI38)
- 5 ' CAAGCAGAAGACGGCATACGAGAT<u>AGCTAG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 39 (RPI39)
- 5 ' CAAGCAGAAGACGCATACGAGAT<u>GTATAG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 40 (RPI40)
- 5 ' CAAGCAGAAGACGCATACGAGAT<u>TCTGAG</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 41 (RPI41)
- 5' CAAGCAGAAGACGCATACGAGAT<u>GTCGTC</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 42 (RPI42)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>CGATTA</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 43 (RPI43)
- 5 ' CAAGCAGAAGACGCATACGAGAT<u>GCTGTA</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 44 (RPI44)
- 5 ' CAAGCAGAAGACGGCATACGAGAT<u>ATTATA</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 45 (RPI45)
- 5 ' CAAGCAGAAGACGGCATACGAGATGAGTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 46 (RPI46)
- 5 ' CAAGCAGAAGACGGCATACGAGAT<u>TCGGGA</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 47 (RPI47)
- 5' CAAGCAGAAGACGGCATACGAGAT<u>CTTCGA</u>GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA RNA PCR Primer, Index 48 (RPI48)
- 5 ' CAAGCAGAAGACGCCATACGAGATTGCCGAGTGACTGGAGTTCCTTGGCACCCGAGAATTCCA

# TruSeq Targeted RNA Expression

i7 Index Name	i7 Bases for Sample Sheet	i7 Index Name	i7 Bases for Sample Sheet
R701	ATCACG	R725	ACTGAT



i7 Index Name	i7 Bases for Sample Sheet	i7 Index Name	i7 Bases for Sample Sheet
R702	CGATGT	R726	ATGAGC
R703	TTAGGC	R727	ATTCCT
R704	TGACCA	R728	CAAAAG
R705	ACAGTG	R729	CAACTA
R706	GCCAAT	R730	CACCGG
R707	CAGATC	R731	CACGAT
R708	ACTTGA	R732	CACTCA
R709	GATCAG	R733	CAGGCG
R710	TAGCTT	R734	CATGGC
R711	GGCTAC	R735	CATTTT
R712	CTTGTA	R736	CCAACA
R713	AGTCAA	R737	CGGAAT
R714	AGTTCC	R738	CTAGCT
R715	ATGTCA	R739	CTATAC
R716	CCGTCC	R740	CTCAGA
R717	GTAGAG	R741	GACGAC
R718	GTCCGC	R742	TAATCG
R719	GTGAAA	R743	TACAGC
R720	GTGGCC	R744	TATAAT
R721	GTTTCG	R745	TCATTC
R722	CGTACG	R746	TCCCGA
R723	GAGTGG	R747	TCGAAG
R724	GGTAGC	R748	TCGGCA



i5 Index Name	i5 Bases for Sample Sheet NovaSeq, MiSeq, HiSeq 2000/2500	i5 Bases for Sample Sheet iSeq, MiniSeq, NextSeq, HiSeq 3000/4000
A501	TGAACCTT	AAGGTTCA
A502	TGCTAAGT	ACTTAGCA
A503	TGTTCTCT	AGAGAACA
A504	TAAGACAC	GTGTCTTA
A505	CTAATCGA	TCGATTAG
A506	CTAGAACA	TGTTCTAG
A507	TAAGTTCC	GGAACTTA
A508	TAGACCTA	TAGGTCTA



# **Appendix**

# Process Controls for TruSeq Kits

Included in TruSeq DNA PCR-Free, TruSeq Nano DNA, TruSeq RNA (v1/v2/LT/HT), and TruSeq Exome Kits.

CTE2 - 150bp

CTE2 - 250bp

ATCCTGCAGATGCATCCAGTACTAGTATGGCCCGGGGGATCCTTATCTGTCAAAACCGCTAATGTCCGTTCTAAGACCGT CTGGAGAACACTTGCCCATCAGTGCTTTTGAACCTTTTTTTCACAGGTCCCTTCCGATTACACTGAGAAGCTGACCACAC CTGCTAGAAGATGGAGGTATGCAGCCCGTTAGTAGGAGTAATACTACCCAGCTTATAACCCTCAAACGTAGGGCAGATGG CGGCCGCGAT

CTE2 - 350bp

CTE2 - 450bp

CTE2 - 550bp

CTE2 - 650bp



#### CTE2 - 750bp

#### CTE2 - 850bp

#### CTE1 - 123bp

#### CTE1 - 223bp

#### CTE1 - 323bp

GATCCTAGAGACCATTCGCGATTCCATGAGACTCCAAGGGTTCTGCACAACTTATGCACCTCTATTAGATCATTGTTTC
TACGAAGCCTGGACTGCATTACATATTCACAACCAACATGAGAAGAGCGGAATAGATGGCCGGATGTTTGGTGGCTTTGA
TATATTGTGAGGAGCATTGCGAACCCTAGAGCTGTCCGGTCAAATAACCCCCTCACAATAAGTGTAATGTCATGGGATAA
TCAAAAGACTAAGGGAGGGCTTTTATAGAAGGCGTGAGGTCATGCTATCCCCCTCTGAAGACGCGGCCGCGATATCCTGC
AGATGCA

#### CTE1 - 423bp

#### CTE1 - 523bp



AATGCTTTCTTCAATAGGTTTGGCTCATGTGTGATTCCCTCTGGCAAACTTATAGAGGACAAGCAGAATAAACCAATTCA
AGGTCGTTGTAGCTGAAGGCCTGCCTGACAGTTAATTATGAGCATGTCTTGCCCTTCATGGTGGATATTCACAGC
TGAAAGTGGTATTGGCATTTTTTTCTGAGGACACAACGAGGAAATCTGATAAATACGGCCACCTGAAGTCTAGCTCGGAG
TTAACAATTTACCACGTTTAGAGCGGCCGCGATATCCTGCAGATGCA

#### CTE1 - 623bp

#### CTE1 - 723bp

#### CTE1 - 823bp

#### CTA - 150bp

#### CTA - 250bp

#### CTA - 350bp



#### CTA - 450bp

GGGGGATCCGTATACGTTTCTAATTTGTAGTTAACGGTTGGATACCACTTTGAGGCATGTAATATGGTACTGAGCTTCGG
CACAGGGCTCAAATTGCATCATTAAATGTCTCCCGATGTGGCTATATGTCATGGATAAAGGCAGCCCCCTATATCTTTTT
TGTGGCAGCATGGGTCCATCAAAGCAATTATTCAGGGTCTTAATGACCTCCACAGCTCTAAACGTAATTCATCTGGCTTT
GCCTGTACTTACTTCCTCCATGAAAAAAAGTGTTGATAATGCTCATAATGCTGCCCAGCAATTTCCTCCCTTCTCAAGAC
TATTCTGGCTTCCTGGGTACTTAAAAACAGGGCTTAGAGTATGGCTGCTGACAAAATTGCACTCTAAACGCTAGCTTAGG
TCTTCTGCGGCCGCGATATCCTGCAGATGCATCCAGTACTAGTATGGCCC

#### CTA - 550bp

#### CTA - 650bp

#### CTA - 750bp

#### CTA - 850bp



#### CTL - 150bp

#### CTL - 250bp

AGTATGGCCCGGGGGATCCTTATCTGTCAAAACCGCTAATGTCCGTTCTAAGACCGTCTGGAGAACACTTGCCCATCAGT GCTTTTGAACCTTTTTTTCACAGGTCCCTTCCGATTACACTGAGAAGCTGACCACACCTGCTAGAAGATGGAGGTATGCA GCCCGTTAGTAGGAGTAATACTACCCAGCTTATAACCCTCAAACGTAGGGCAGATGGCGGCCGCGATATCCTGCAGATGC ATCCAGTACA

#### CTL - 350bp

#### CTL - 450bp

AGTATGGCCCGGGGGATCCGTATACGTTTCTAATTTGTAGTTAACGGTTGGATACCACTTTGAGGCATGTAATATGGTAC
TGAGCTTCGGCACAGGGCTCAAATTGCATCATTAAATGTCTCCCGATGTGGCTATATGTCATGGATAAAGGCAGCCCCCTA
TATCTTTTTTTTGTGGCAGCATGGGTCCATCAAAGCAATTATTCAGGGTCTTAATGACCTCCACAGCTCTAAACGTAATTC
ATCTGGCTTTGCCTGTACTTACTTCCTCCATGAAAAAAAGTGTTGATAATGCTCCATAATGCTGCCCAGCAATTTCCTCCC
TTCTCAAGACTATTCTGGCTTCCTGGGTACTTAAAAACAGGGCTTAGAGTATGGCTGCTGACAAAATTGCACTCTAAACG
CTAGCTTAGGTCTTCTGCGGCCGCGATATCCTGCAGATGCATCCAGTACA

#### CTL - 550bp

#### CTL - 650bp

#### CTL - 750bp

AGTATGGCCCGGGGGATCCTTGGACCGTTAATTCATATATCGAAGTAGCAGGTTGTTGCCCCGCCTGATGTTGCCACTAC
TTGCTCATGACAGTTTTTTTAGGCAATGCAAACTACTATTTGATATTTTTTTCCAAGTACAGTTGTAGGGTACTCCTTAT
ACTGATTCTTCTGAGCCTGTACGGGGAGCATTAGGTACTGATGTAGTAGGAGTTGAGCTTCACAAATTCACCAGGTAAGC



#### CTL - 850bp

The kits listed in this section are no longer sold.

# Nextera DNA Sample Prep Kit (Epicentre Biotechnologies)

#### (Obsolete)

As a replacement, use catalog # FC-121-1030 or catalog # FC-121-1031.

#### Transposon Sequences

- 5'-GCCTCCCTCGCGCCATCAGAGATGTGTATAAGAGACAG
- 5'-GCCTTGCCAGCCCGCTCAGAGATGTGTATAAGAGACAG

#### Adapters (showing optional bar code)

- 5'-AATGATACGGCGACCACCGAGATCTACACGCCTCCCTCGCGCCATCAG
- 5'-CAAGCAGAAGACGCATACGAGAT[barcode]CGGTCTGCCTTGCCAGCCCGCTCAG-3'

#### **PCR Primers**

- 5'-AATGATACGGCGACCACCGA
- 5'-CAAGCAGAAGACGGCATACGA

# Oligonucleotide Sequences for Genomic DNA

(Obsolete)

41



#### Adapters

- 5' P-GATCGGAAGAGCTCGTATGCCGTCTTCTGCTTG
- 5' ACACTCTTTCCCTACACGACGCTCTTCCGATCT

#### **PCR Primers**

- 5' AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTTCCGATCT
- 5' CAAGCAGAAGACGGCATACGAGCTCTTCCGATCT

#### Genomic DNA Sequencing Primer

5' ACACTCTTTCCCTACACGACGCTCTTCCGATCT

# Oligonucleotide Sequences for Paired End DNA

#### (Obsolete)

#### PE Adapters

- 5' P-GATCGGAAGAGCGGTTCAGCAGGAATGCCGAG
- 5' ACACTCTTTCCCTACACGACGCTCTTCCGATCT

#### PE PCR Primer 1.0

5' AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTTCCGATCT

#### PE PCR Primer 2.0

5' CAAGCAGAAGACGGCATACGAGATCGGTCTCGGCATTCCTGCTGAACCGCTCTTCCGATCT

#### PE Read 1 Sequencing Primer

5' ACACTCTTTCCCTACACGACGCTCTTCCGATCT

#### PE Read 2 Sequencing Primer

5' CGGTCTCGGCATTCCTGCTGAACCGCTCTTCCGATCT

# Oligonucleotide Sequences for the Multiplexing Sample Prep Oligo Only Kit

#### (Obsolete)

#### **Multiplexing Adapters**

- 5' P-GATCGGAAGAGCACACGTCT
- 5' ACACTCTTTCCCTACACGACGCTCTTCCGATCT



#### Multiplexing PCR Primer 1.0

5' AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTTCCGATCT Highlighted part is P5

Multiplexing PCR Primer 2.0

5' GTGACTGGAGTTCAGACGTGTGCTCTTCCGATCT

#### Multiplexing Read 1 Sequencing Primer

5' ACACTCTTTCCCTACACGACGCTCTTCCGATCT

#### Multiplexing Index Read Sequencing Primer

5' GATCGGAAGAGCACACGTCTGAACTCCAGTCAC

#### Multiplexing Read 2 Sequencing Primer

5' GTGACTGGAGTTCAGACGTGTGCTCTTCCGATCT

PCR Primer Index Sequences 1–12

PCR Primer, Index 1

5' CAAGCAGAAGACGGCATACGAGATCGTGATGTGACTGGAGTTC Highlighted part is P7

PCR Primer, Index 2

5' CAAGCAGAAGACGGCATACGAGATACATCGGTGACTGGAGTTC

PCR Primer, Index 3

5' CAAGCAGAAGACGGCATACGAGATGCCTAAGTGACTGGAGTTC

PCR Primer, Index 4

5' CAAGCAGAAGACGGCATACGAGATTGGTCAGTGACTGGAGTTC

PCR Primer, Index 5

5' CAAGCAGAAGACGGCATACGAGATCACTGTGTGACTGGAGTTC

PCR Primer, Index 6

5' CAAGCAGAAGACGGCATACGAGATATTGGCGTGACTGGAGTTC

PCR Primer, Index 7

5' CAAGCAGAAGACGGCATACGAGATGATCTGGTGACTGGAGTTC

PCR Primer, Index 8

5' CAAGCAGAAGACGGCATACGAGATTCAAGTGTGACTGGAGTTC

PCR Primer, Index 9

5' CAAGCAGAAGACGGCATACGAGATCTGATCGTGACTGGAGTTC

PCR Primer, Index 10

5' CAAGCAGAAGACGCCATACGAGATAAGCTAGTGACTGGAGTTC



PCR Primer, Index 11

5' CAAGCAGAAGACGGCATACGAGATGTAGCCGTGACTGGAGTTC

PCR Primer, Index 12

5' CAAGCAGAAGACGGCATACGAGATTACAAGGTGACTGGAGTTC

# Oligonucleotide Sequences for the v1 and v1.5 Small RNA Kits

(Obsolete)

**RT Primer** 

5' CAAGCAGAAGACGGCATACGA

5' RNA Adapter

5' GUUCAGAGUUCUACAGUCCGACGAUC

3' RNA Adapter

5' P-UCGUAUGCCGUCUUCUGCUUGUidT

v1.5 Small RNA 3' Adapter

5' / 5rApp/ATCTCGTATGCCGTCTTCTGCTTG/3ddC/

Small RNA PCR Primer 1

5' CAAGCAGAAGACGGCATACGA

Small RNA PCR Primer 2

5 ' AATGATACGGCGACCACCGACAGGTTCAGAGTTCTACAGTCCGA

Small RNA Sequencing Primer

5' CGACAGGTTCAGAGTTCTACAGTCCGACGATC



# Revision History

Document	Date	Description of Change
Document # 100000002694 v07	June 2018	Added the iSeq 100 Sequencing System, which requires a reverse complement.
Document # 100000002694 v06	February 2018	Added TruSight Tumor 170 indexes.
Document # 100000002694 v05	February 2018	Updated IDT for Illumina to include all 96 indexes.
Document # 100000002694 v04	January 2018	Added AmpliSeq for Illumina Panels
Document # 1000000002694 v03	October 2017	Corrected the i5 bases for sample sheet insertion for the MiSeq and HiSeq sequencers concerning the Nextera DNA Flex kits. Updated section headers for TruSeq CD Indexes and reordered TruSeq sections.
Document # 100000002694 v02	September 2017	Added adapters for Nextera DNA Flex kits.
Document # 100000002694 v01	February 2016	Corrected i5 adapter names for TruSight One to E502–E505.  Added adapters for TruSight RNA Pan-Cancer, TruSeq DNA Methylation, and TruSeq Ribo Profile.  Added MiniSeq where appropriate for reverse complement sequences.  Added introduction, which explains when the reverse complement is required in the sample sheet.
Document # 100000002694 v00	October 2015	Added information for the following TruSight kits: TruSight Cardio, TruSight Myeloid Sequencing Panel, TruSight One, TruSight Rapid Capture, TruSight Tumor 15, and TruSight Tumor 26. Created a TruSeq Amplicon section for TruSeq Custom Amplicon 1.5, TruSeq Amplicon Cancer Panel, and TruSeq Custom Amplicon Low Input. Marked obsolete kits as obsolete. Grouped legacy kit information in new section titled Legacy Kits. Reformatted and reorganized the contents, and assigned document # 1000000002694.



Illumina • 1.800.809.4566 toll-free (U.S.) • +1.858.202.4566 tel • techsupport @illumina.com • www.illumina.com For research use only

© 2016 Illumina, Inc. All rights reserved.

Illumina, 24sure, BaseSpace, BeadArray, BlueFish, BlueFuse, BlueGnome, cBot, CSPro, CytoChip, DesignStudio, Epicentre, ForenSeq, Genetic Energy, GenomeStudio, GoldenGate, HiScan, HiSeq, HiSeq, X, Infinium, iScan, iScan, iSelect, MiniSeq, MiSeq, MiSeqDx, MiSeq FGx, NeoPrep, NextBio, Nextera, NextSeq, Powered by Illumina, SureMDA, TruGenome, TruSeq, TruSight, Understand Your Genome, UYG, VeraCode, verify, VeriSeq, the pumpkin orange color, and the Genetic Energy streaming bases design are trademarks or registered trademarks of Illumina, Inc. All other brands and names contained herein are the property of their respective owners.

46