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Illumina Adapter Sequences

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Overview

This resource lists the adapter sequences for Illumina library prep kits.

The library prep kit support pages on the Illumina support site provide additional resources. These resources include software, training, and compatible products. Always check support pages for the latest versions.

Index 2 (i5) Orientation

When dual indexing, the orientation of the Index 2 (i5) sequence varies by platform.

MiSeq and HiSeq 2000/2500 i5 adapters:

- Adapters are read in the forward orientation.
- Enter the i5 bases on the sample sheet in the forward orientation.

iSeq 100, MiniSeq, NextSeq 500/550, NextSeq 1000/2000, HiSeq 3000/4000, NovaSeq 6000 (v1.5 reagents), and NovaSeq X/X Plus i5 adapters:

- Adapters are read in the reverse complement orientation.
- If manually creating a sample sheet to be analyzed in bcl2fastq, enter the i5 bases in reverse orientation.
- If using BaseSpace Run Planning, Illumina Experiment Manager, BaseSpace Prep Tab, or Local Run Manager, enter the i5 bases on the sample sheet in forward orientation. The software automatically creates the reverse complement for analysis.
- If using DRAGEN/BCL Convert for NextSeq 1000/2000 or NovaSeq X/X Plus using a manually created v2 sample sheet, enter the i5 bases in forward orientation. DRAGEN/BCL Convert automatically uses the reverse complement for analysis. For all other platforms, use the reverse complement orientation of the i5 sequence.

MiSeq i100 Series i5 adapters:

- For Index First sequencing, adapters are read in the forward orientation.
- For Read First sequencing, adapters are read in the reverse complement orientation.
- If using BaseSpace Run Planning or Illumina Run Manager, enter the i5 bases on the sample sheet in forward orientation. The software automatically creates the reverse complement for analysis for Read First sequencing.
- If using a v2 sample sheet to create a planned run using a DRAGEN application, enter the i5 bases on the sample sheet in forward orientation for both Index First and Read First sequencing. The software automatically creates the reverse complement for analysis for Read First sequencing.

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- If using a sample sheet for analysis using a FASTQ generation method (other than DRAGEN/BCL Convert), enter the i5 bases in forward orientation for Index First sequencing and in reverse complement orientation for Read First sequencing.

Adapter Trimming Sequences

For Illumina kits where adapter trimming is recommended, the sequence of the adapter to be trimmed is listed.

When read length exceeds the DNA insert size, sequences corresponding to the library adapters can be present at the 3’ end of the reads. Trimming the adapter sequence from the FASTQ file improves alignment accuracy and performance in secondary analysis. Reads start at the beginning of the DNA insert. Therefore, adapter sequences will not be present at the 5’ end of reads.

For Illumina Experiment Manager, BaseSpace Run Planning, BaseSpace Prep Tab, and Local Run Manager, enter the sequence for adapter trimming in the sample sheet generated for Illumina kits. For specific trimming settings, or for guidance on creating custom kits, refer to the software support pages on the Illumina support site.

Sequences for Illumina Prep and Nextera Kits

This section lists the adapter sequences for Illumina Prep and Nextera Kits.

Adapter Trimming

The following sequence is used for Read 1 and Read 2 adapter trimming.

```
CTGTCTCTTATACACATCT
```

Illumina DNA PCR-Free Prep, Tagmentation Adapter Trimming

The following sequence includes two adapter sequences joined by a plus sign. When performing adapter trimming, the software independently assesses each adapter for trimming.

```
CTGTCTCTTATACACATCT+ATGTGTATAAGAGACA
```

Illumina Stranded mRNA and Illumina Stranded Total RNA Adapter Trimming

The following sequence is used for Read 1 and Read 2 adapter trimming.

```
ACTGTCTCTTATACACATCT
```

Nextera Mate Pair Adapter Trimming

The following sequence includes two adapter sequences joined by a plus sign. When performing adapter trimming, the software independently assesses each adapter for trimming.

```
CTGTCTCTTATACACATCT+AGATGTGTATAAGAGACAG
```

Nextera Transposase Adapters

The following transposase adapters are used for Nextera tagmentation.

Read 1

```
5′ TCGTCGGCAGCGTCAGATGTGTATAAGAGACAG
```

Read 2

```
5′ GTCTCGTGGGCTCGGAGATGTGTATAAGAGACAG
```

PCR Primers

Index 1 Read

```
5′ CAAGCAGAAGACGGCATACGAGAT[i7]GTCTCGTGGGCTCGG
```

Index 2 Read

```
5′ AATGATACGGCGACCACCGAGATCTACAC[i5]TCGTCGGCAGCGTC
```


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Illumina Unique Dual Indexes

The Illumina Unique Dual (UD) index adapters are arranged in the plate to enforce the recommended pairing strategy. The index adapters are 10 bases long, instead of the typical eight bases.

The Illumina Unique Dual Indexes include the following:

- Illumina DNA/RNA UD Indexes, Tagmentation
- Illumina RNA UD Indexes, Ligation
- Illumina Unique Dual Indexes, LT

Index 1 (i7) Adapters

`CAAGCAGAAGACGGCATACGAGAT[i7]GTCTCGTGGGCTCGG`

Index 2 (i5) Adapters

`AATGATACGGCGACCACCGAGATCTACAC[i5]TCGTCGGCAGCGTC`

Set A Index Adapters

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0001	CGCTCAGTTC	GAACTGAGCG	TCGTGGAGCG	TCGTGGAGCG	CGCTCCACGA
UDP0002	TATCTGACCT	AGGTCAGATA	CTACAAGATA	CTACAAGATA	TATCTTGTAG
UDP0003V3	TCGGATGTCG	CGACATCCGA	TACGTTCATT	TACGTTCATT	AATGAACGTA
UDP0004	CTTATGGAAT	ATTCCATAAG	TGCCTGGTGG	TGCCTGGTGG	CCACCAGGCA
UDP0005V3	TCCTATTGTG	CACAATAGGA	TCCATCCGAG	TCCATCCGAG	CTCGGATGGA
UDP0006	GCGCGATGTT	AACATCGCGC	GTCCACTTGT	GTCCACTTGT	ACAAGTGGAC
UDP0007	AGAGCACTAG	CTAGTGCTCT	TGGAACAGTA	TGGAACAGTA	TACTGTTCCA
UDP0008	TGCCTTGATC	GATCAAGGCA	CCTTGTTAAT	CCTTGTTAAT	ATTAACAAGG
UDP0009	CTACTCAGTC	GACTGAGTAG	GTTGATAGTG	GTTGATAGTG	CACTATCAAC
UDP0010	TCGTCTGACT	AGTCAGACGA	ACCAGCGACA	ACCAGCGACA	TGTCGCTGGT
UDP0011	GAACATACGG	CCGTATGTTC	CATACACTGT	CATACACTGT	ACAGTGTATG
UDP0012	CCTATGACTC	GAGTCATAGG	GTGTGGCGCT	GTGTGGCGCT	AGCGCCACAC

Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0013	TAATGGCAAG	CTTGCCATTA	ATCACGAAGG	ATCACGAAGG	CCTTCGTGAT
UDP0014	GTGCCGCTTC	GAAGCGGCAC	CGGCTCTACT	CGGCTCTACT	AGTAGAGCCG
UDP0015	CGGCAATGGA	TCCATTGCCG	GAATGCACGA	GAATGCACGA	TCGTGCATTC
UDP0016	GCCGTAACCG	CGGTTACGGC	AAGACTATAG	AAGACTATAG	CTATAGTCTT
UDP0017	AACCATTCTC	GAGAATGGTT	TCGGCAGCAA	TCGGCAGCAA	TTGCTGCCGA
UDP0018	GGTTGCCTCT	AGAGGCAACC	CTAATGATGG	CTAATGATGG	CCATCATTAG
UDP0019	CTAATGATGG	CCATCATTAG	GGTTGCCTCT	GGTTGCCTCT	AGAGGCAACC
UDP0020	TCGGCCTATC	GATAGGCCGA	CGCACATGGC	CGCACATGGC	GCCATGTGCG
UDP0021	AGTCAACCAT	ATGGTTGACT	GGCCTGTCCT	GGCCTGTCCT	AGGACAGGCC
UDP0022	GAGCGCAATA	TATTGCGCTC	CTGTGTTAGG	CTGTGTTAGG	CCTAACACAG
UDP0023	AACAAGGCGT	ACGCCTTGTT	TAAGGAACGT	TAAGGAACGT	ACGTTCCTTA
UDP0024	GTATGTAGAA	TTCTACATAC	CTAACTGTAA	CTAACTGTAA	TTACAGTTAG
UDP0025	TTCTATGGTT	AACCATAGAA	GGCGAGATGG	GGCGAGATGG	CCATCTCGCC
UDP0026	CCTCGCAACC	GGTTGCGAGG	AATAGAGCAA	AATAGAGCAA	TTGCTCTATT
UDP0027	TGGATGCTTA	TAAGCATCCA	TCAATCCATT	TCAATCCATT	AATGGATTGA
UDP0028	ATGTCGTGGT	ACCACGACAT	TCGTATGCGG	TCGTATGCGG	CCGCATACGA
UDP0029	AGAGTGCGGC	GCCGCACTCT	TCCGACCTCG	TCCGACCTCG	CGAGGTCGGA
UDP0030	TGCCTGGTGG	CCACCAGGCA	CTTATGGAAT	CTTATGGAAT	ATTCCATAAG
UDP0031	TGCGTGTCAC	GTGACACGCA	GCTTACGGAC	GCTTACGGAC	GTCCGTAAGC
UDP0032	CATACACTGT	ACAGTGTATG	GAACATACGG	GAACATACGG	CCGTATGTTC
UDP0033	CGTATAATCA	TGATTATACG	GTCGATTACA	GTCGATTACA	TGTAATCGAC
UDP0034	TACGCGGCTG	CAGCCGCGTA	ACTAGCCGTG	ACTAGCCGTG	CACGGCTAGT
UDP0035	GCGAGTTACC	GGTAACTCGC	AAGTTGGTGA	AAGTTGGTGA	TCACCAACTT
UDP0036	TACGGCCGGT	ACCGGCCGTA	TGGCAATATT	TGGCAATATT	AATATTGCCA
UDP0037	GTCGATTACA	TGTAATCGAC	GATCACCGCG	GATCACCGCG	CGCGGTGATC
UDP0038	CTGTCTGCAC	GTGCAGACAG	TACCATCCGT	TACCATCCGT	ACGGATGGTA
UDP0039	CAGCCGATTG	CAATCGGCTG	GCTGTAGGAA	GCTGTAGGAA	TTCCTACAGC

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0040	TGACTACATA	TATGTAGTCA	CGCACTAATG	CGCACTAATG	CATTAGTGCG
UDP0041	ATTGCCGAGT	ACTCGGCAAT	GACAACTGAA	GACAACTGAA	TTCAGTTGTC
UDP0042	GCCATTAGAC	GTCTAATGGC	AGTGGTCAGG	AGTGGTCAGG	CCTGACCACT
UDP0043	GGCGAGATGG	CCATCTCGCC	TTCTATGGTT	TTCTATGGTT	AACCATAGAA
UDP0044	TGGCTCGCAG	CTGCGAGCCA	AATCCGGCCA	AATCCGGCCA	TGGCCGGATT
UDP0045	TAGAATAACG	CGTTATTCTA	CCATAAGGTT	CCATAAGGTT	AACCTTATGG
UDP0046V3	TCCATGTTGC	GCAACATGGA	CTTGTCTTAA	CTTGTCTTAA	TTAAGACAAG
UDP0047	TATCCAGGAC	GTCCTGGATA	CGGTGGCGAA	CGGTGGCGAA	TTCGCCACCG
UDP0048	AGTGCCACTG	CAGTGGCACT	TAACAATAGG	TAACAATAGG	CCTATTGTTA
UDP0049	GTGCAACACT	AGTGTTGCAC	CTGGTACACG	CTGGTACACG	CGTGTACCAG
UDP0050	ACATGGTGTC	GACACCATGT	TCAACGTGTA	TCAACGTGTA	TACACGTTGA
UDP0051	GACAGACAGG	CCTGTCTGTC	ACTGTTGTGA	ACTGTTGTGA	TCACAACAGT
UDP0052	TCTTACATCA	TGATGTAAGA	GTGCGTCCTT	GTGCGTCCTT	AAGGACGCAC
UDP0053V3	TACCGAACTA	TAGTTCGGTA	CCATGTGTAG	CCATGTGTAG	CTACACATGG
UDP0054V3	GTAGTAATAG	CTATTACTAC	GAGTCTCTCC	GAGTCTCTCC	GGAGAGACTC
UDP0055V3	GGTTATGCTA	TAGCATAACC	GCTATGCGCA	GCTATGCGCA	TGCGCATAGC
UDP0056V3	ACAATAGAGT	ACTCTATTGT	ATCGCATATG	ATCGCATATG	CATATGCGAT
UDP0057	TTAGGATAGA	TCTATCCTAA	CGTCGACTGG	CGTCGACTGG	CCAGTCGACG
UDP0058	CCGAAGCGAG	CTCGCTTCGG	TACTAGTCAA	TACTAGTCAA	TTGACTAGTA
UDP0059	GGACCAACAG	CTGTTGGTCC	ATAGACCGTT	ATAGACCGTT	AACGGTCTAT
UDP0060	TTCCAGGTAA	TTACCTGGAA	ACAGTTCCAG	ACAGTTCCAG	CTGGAACTGT
UDP0061	TGATTAGCCA	TGGCTAATCA	AGGCATGTAG	AGGCATGTAG	CTACATGCCT
UDP0062	TAACAGTGTT	AACACTGTTA	GCAAGTCTCA	GCAAGTCTCA	TGAGACTTGC
UDP0063	ACCGCGCAAT	ATTGCGCGGT	TTGGCTCCGC	TTGGCTCCGC	GCGGAGCCAA
UDP0064	GTTCGCGCCA	TGGCGCGAAC	AACTGATACT	AACTGATACT	AGTATCAGTT
UDP0065	AGACACATTA	TAATGTGTCT	GTAAGGCATA	GTAAGGCATA	TATGCCTTAC
UDP0066	GCGTTGGTAT	ATACCAACGC	AATTGCTGCG	AATTGCTGCG	CGCAGCAATT

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0067	AGCACATCCT	AGGATGTGCT	TTACAATTCC	TTACAATTCC	GGAATTGTAA
UDP0068	TTGTTCCGTG	CACGGAACAA	AACCTAGCAC	AACCTAGCAC	GTGCTAGGTT
UDP0069V3	AAGGCCTTGG	CCAAGGCCTT	TCGAAGTACT	TCGAAGTACT	AGTACTTCGA
UDP0070V3	TGTGGAGTAA	TTACTCCACA	GACACCGATG	GACACCGATG	CATCGGTGTC
UDP0071V3	CACTTCTACT	AGTAGAAGTG	CTAGCGTCGA	CTAGCGTCGA	TCGACGCTAG
UDP0072V3	TGGACTCGTA	TACGAGTCCA	TAGCGAAGCA	TAGCGAAGCA	TGCTTCGCTA
UDP0073V3	TATCATGAGA	TCTCATGATA	AACACGTGGA	AACACGTGGA	TCCACGTGTT
UDP0074V3	CTTGGCCTCG	CGAGGCCAAG	GTGTTACCGG	GTGTTACCGG	CCGGTAACAC
UDP0075V3	GTCTCGTGAA	TTCACGAGAC	AGATTGTTAC	AGATTGTTAC	GTAACAATCT
UDP0076V3	CCATCCACGC	GCGTGGATGG	TTGACCAATG	TTGACCAATG	CATTGGTCAA
UDP0077	GGATACCAGA	TCTGGTATCC	CGTTGCTTAC	CGTTGCTTAC	GTAAGCAACG
UDP0078	CGCACTAATG	CATTAGTGCG	TGACTACATA	TGACTACATA	TATGTAGTCA
UDP0079	TCCTGACCGT	ACGGTCAGGA	CGGCCTCGTT	CGGCCTCGTT	AACGAGGCCG
UDP0080	CTGGCTTGCC	GGCAAGCCAG	CAAGCATCCG	CAAGCATCCG	CGGATGCTTG
UDP0081	ACCAGCGACA	TGTCGCTGGT	TCGTCTGACT	TCGTCTGACT	AGTCAGACGA
UDP0082	TTGTAACGGT	ACCGTTACAA	CTCATAGCGA	CTCATAGCGA	TCGCTATGAG
UDP0083	GTAAGGCATA	TATGCCTTAC	AGACACATTA	AGACACATTA	TAATGTGTCT
UDP0084V3	TAGATCCAGT	ACTGGATCTA	TCGCCGCTAG	TCGCCGCTAG	CTAGCGGCGA
UDP0085	TTAGGTACCA	TGGTACCTAA	CATGAGTACT	CATGAGTACT	AGTACTCATG
UDP0086	GGAATTCCAA	TTGGAATTCC	ACGTCAATAC	ACGTCAATAC	GTATTGACGT
UDP0087	CATGTAGAGG	CCTCTACATG	GATACCTCCT	GATACCTCCT	AGGAGGTATC
UDP0088	TACACGCTCC	GGAGCGTGTA	ATCCGTAAGT	ATCCGTAAGT	ACTTACGGAT
UDP0089	GCTTACGGAC	GTCCGTAAGC	CGTGTATCTT	CGTGTATCTT	AAGATACACG
UDP0090	CGCTTGAAGT	ACTTCAAGCG	GAACCATGAA	GAACCATGAA	TTCATGGTTC
UDP0091	CGCCTTCTGA	TCAGAAGGCG	GGCCATCATA	GGCCATCATA	TATGATGGCC
UDP0092	ATACCAACGC	GCGTTGGTAT	ACATACTTCC	ACATACTTCC	GGAAGTATGT
UDP0093	CTGGATATGT	ACATATCCAG	TATGTGCAAT	TATGTGCAAT	ATTGCACATA

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0094	CAATCTATGA	TCATAGATTG	GATTAAGGTG	GATTAAGGTG	CACCTTAATC
UDP0095	GGTGGAATAC	GTATTCCACC	ATGTAGACAA	ATGTAGACAA	TTGTCTACAT
UDP0096	TGGACGGAGG	CCTCCGTCCA	CACATCGGTG	CACATCGGTG	CACCGATGTG

Set B Index Adapters

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0097	CTGACCGGCA	TGCCGGTCAG	CCTGATACAA	CCTGATACAA	TTGTATCAGG
UDP0098	GAATTGAGTG	CACTCAATTC	TTAAGTTGTG	TTAAGTTGTG	CACAACTTAA
UDP0099	GCGTGTGAGA	TCTCACACGC	CGGACAGTGA	CGGACAGTGA	TCACTGTCCG
UDP0100	TCTCCATTGA	TCAATGGAGA	GCACTACAAC	GCACTACAAC	GTTGTAGTGC
UDP0101	ACATGCATAT	ATATGCATGT	TGGTGCCTGG	TGGTGCCTGG	CCAGGCACCA
UDP0102V3	TTGAAGCTAG	CTAGCTTCAA	TGTGTAAGCT	TGTGTAAGCT	AGCTTACACA
UDP0103	ACATAACGGA	TCCGTTATGT	TTGTAGTGTA	TTGTAGTGTA	TACACTACAA
UDP0104	TTAATAGACC	GGTCTATTAA	CCACGACACG	CCACGACACG	CGTGTCGTGG
UDP0105	ACGATTGCTG	CAGCAATCGT	TGTGATGTAT	TGTGATGTAT	ATACATCACA
UDP0106	TTCTACAGAA	TTCTGTAGAA	GAGCGCAATA	GAGCGCAATA	TATTGCGCTC
UDP0107	TATTGCGTTC	GAACGCAATA	ATCTTACTGT	ATCTTACTGT	ACAGTAAGAT
UDP0108	CATGAGTACT	AGTACTCATG	ATGTCGTGGT	ATGTCGTGGT	ACCACGACAT
UDP0109	TAATTCTACC	GGTAGAATTA	GTAGCCATCA	GTAGCCATCA	TGATGGCTAC
UDP0110	ACGCTAATTA	TAATTAGCGT	TGGTTAAGAA	TGGTTAAGAA	TTCTTAACCA
UDP0111	CCTTGTTAAT	ATTAACAAGG	TGTTGTTCGT	TGTTGTTCGT	ACGAACAACA
UDP0112	GTAGCCATCA	TGATGGCTAC	CCAACAACAT	CCAACAACAT	ATGTTGTTGG

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0113	CTTGTAATTC	GAATTACAAG	ACCGGCTCAG	ACCGGCTCAG	CTGAGCCGGT
UDP0114	TCCAATTCTA	TAGAATTGGA	GTTAATCTGA	GTTAATCTGA	TCAGATTAAC
UDP0115	AGAGCTGCCT	AGGCAGCTCT	CGGCTAACGT	CGGCTAACGT	ACGTTAGCCG
UDP0116	CTTCGCCGAT	ATCGGCGAAG	TCCAAGAATT	TCCAAGAATT	AATTCTTGGA
UDP0117	TCGGTCACGG	CCGTGACCGA	CCGAACGTTG	CCGAACGTTG	CAACGTTCGG
UDP0118	GAACAAGTAT	ATACTTGTTC	TAACCGCCGA	TAACCGCCGA	TCGGCGGTTA
UDP0119	AATTGGCGGA	TCCGCCAATT	CTCCGTGCTG	CTCCGTGCTG	CAGCACGGAG
UDP0120	GGCCTGTCCT	AGGACAGGCC	CATTCCAGCT	CATTCCAGCT	AGCTGGAATG
UDP0121	TAGGTTCTCT	AGAGAACCTA	GGTTATGCTA	GGTTATGCTA	TAGCATAACC
UDP0122	ACACAATATC	GATATTGTGT	ACCACACGGT	ACCACACGGT	ACCGTGTGGT
UDP0123	TTCCTGTACG	CGTACAGGAA	TAGGTTCTCT	TAGGTTCTCT	AGAGAACCTA
UDP0124	GGTAACGCAG	CTGCGTTACC	TATGGCTCGA	TATGGCTCGA	TCGAGCCATA
UDP0125	TCCACGGCCT	AGGCCGTGGA	CTCGTGCGTT	CTCGTGCGTT	AACGCACGAG
UDP0126	GATACCTCCT	AGGAGGTATC	CCAGTTGGCA	CCAGTTGGCA	TGCCAACTGG
UDP0127	CAACGTCAGC	GCTGACGTTG	TGTTCGCATT	TGTTCGCATT	AATGCGAACA
UDP0128	CGGTTATTAG	CTAATAACCG	AACCGCATCG	AACCGCATCG	CGATGCGGTT
UDP0129	CGCGCCTAGA	TCTAGGCGCG	CGAAGGTTAA	CGAAGGTTAA	TTAACCTTCG
UDP0130	TCTTGGCTAT	ATAGCCAAGA	AGTGCCACTG	AGTGCCACTG	CAGTGGCACT
UDP0131	TCACACCGAA	TTCGGTGTGA	GAACAAGTAT	GAACAAGTAT	ATACTTGTTC
UDP0132	AACGTTACAT	ATGTAACGTT	ACGATTGCTG	ACGATTGCTG	CAGCAATCGT
UDP0133	CGGCCTCGTT	AACGAGGCCG	ATACCTGGAT	ATACCTGGAT	ATCCAGGTAT
UDP0134	CATAACACCA	TGGTGTTATG	TCCAATTCTA	TCCAATTCTA	TAGAATTGGA
UDP0135	ACAGAGGCCA	TGGCCTCTGT	TGAGACAGCG	TGAGACAGCG	CGCTGTCTCA
UDP0136	TGGTGCCTGG	CCAGGCACCA	ACGCTAATTA	ACGCTAATTA	TAATTAGCGT
UDP0137	TAGGAACCGG	CCGGTTCCTA	TATATTCGAG	TATATTCGAG	CTCGAATATA
UDP0138	AATATTGGCC	GGCCAATATT	CGGTCCGATA	CGGTCCGATA	TATCGGACCG
UDP0139	ATAGGTATTC	GAATACCTAT	ACAATAGAGT	ACAATAGAGT	ACTCTATTGT

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0140	CCTTCACGTA	TACGTGAAGG	CGGTTATTAG	CGGTTATTAG	CTAATAACCG
UDP0141	GGCCAATAAG	CTTATTGGCC	GATAACAAGT	GATAACAAGT	ACTTGTTATC
UDP0142	CAGTAGTTGT	ACAACTACTG	AGTTATCACA	AGTTATCACA	TGTGATAACT
UDP0143	TTCATCCAAC	GTTGGATGAA	TTCCAGGTAA	TTCCAGGTAA	TTACCTGGAA
UDP0144	CAATTGGATT	AATCCAATTG	CATGTAGAGG	CATGTAGAGG	CCTCTACATG
UDP0145V3	AACCTAGCAC	GTGCTAGGTT	TGAATATTGC	TGAATATTGC	GCAATATTCA
UDP0146V3	TGGTCGCTGT	ACAGCGACCA	CAGGAGCTCT	CAGGAGCTCT	AGAGCTCCTG
UDP0147V3	TCTGTGTGGA	TCCACACAGA	TTGTCGGATG	TTGTCGGATG	CATCCGACAA
UDP0148V3	CCTAACACTT	AAGTGTTAGG	GCTAGTTCCG	GCTAGTTCCG	CGGAACTAGC
UDP0149	ATTCAGAATC	GATTCTGAAT	AGCGGTGGAC	AGCGGTGGAC	GTCCACCGCT
UDP0150	GTATTCTCTA	TAGAGAATAC	TATAGATTCG	TATAGATTCG	CGAATCTATA
UDP0151	CCTGATACAA	TTGTATCAGG	ACAGAGGCCA	ACAGAGGCCA	TGGCCTCTGT
UDP0152	GACCGCTGTG	CACAGCGGTC	ATTCCTATTG	ATTCCTATTG	CAATAGGAAT
UDP0153	TTCAGCGTGG	CCACGCTGAA	TATTCCTCAG	TATTCCTCAG	CTGAGGAATA
UDP0154	AACTCCGAAC	GTTCGGAGTT	CGCCTTCTGA	CGCCTTCTGA	TCAGAAGGCG
UDP0155V3	AATACGACAT	ATGTCGTATT	TTCTTGCTGG	TTCTTGCTGG	CCAGCAAGAA
UDP0156	TGAATATTGC	GCAATATTCA	GGCGCCAATT	GGCGCCAATT	AATTGGCGCC
UDP0157	CGCAATCTAG	CTAGATTGCG	AGATATGGCG	AGATATGGCG	CGCCATATCT
UDP0158	AACCGCATCG	CGATGCGGTT	CCTGCTTGGT	CCTGCTTGGT	ACCAAGCAGG
UDP0159	CTAGTCCGGA	TCCGGACTAG	GACGAACAAT	GACGAACAAT	ATTGTTCGTC
UDP0160	GCTCCGTCAC	GTGACGGAGC	TGGCGGTCCA	TGGCGGTCCA	TGGACCGCCA
UDP0161	AGATGGAATT	AATTCCATCT	CTTCAGTTAC	CTTCAGTTAC	GTAACTGAAG
UDP0162	ACACCGTTAA	TTAACGGTGT	TCCTGACCGT	TCCTGACCGT	ACGGTCAGGA
UDP0163	GATAACAAGT	ACTTGTTATC	CGCGCCTAGA	CGCGCCTAGA	TCTAGGCGCG
UDP0164	CTGGTACACG	CGTGTACCAG	AGGATAAGTT	AGGATAAGTT	AACTTATCCT
UDP0165	CGAAGGTTAA	TTAACCTTCG	AGGCCAGACA	AGGCCAGACA	TGTCTGGCCT
UDP0166	ATCGCATATG	CATATGCGAT	CCTTGAACGG	CCTTGAACGG	CCGTTCAAGG

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0167	ATCATAGGCT	AGCCTATGAT	CACCACCTAC	CACCACCTAC	GTAGGTGGTG
UDP0168	GATTGTCATA	TATGACAATC	TTGCTTGTAT	TTGCTTGTAT	ATACAAGCAA
UDP0169	CCAACAACAT	ATGTTGTTGG	CAATCTATGA	CAATCTATGA	TCATAGATTG
UDP0170	TTGGTGGTGC	GCACCACCAA	TGGTACTGAT	TGGTACTGAT	ATCAGTACCA
UDP0171	GCGAACGCCT	AGGCGTTCGC	TTCATCCAAC	TTCATCCAAC	GTTGGATGAA
UDP0172	CAACCGGAGG	CCTCCGGTTG	CATAACACCA	CATAACACCA	TGGTGTTATG
UDP0173	AGCGGTGGAC	GTCCACCGCT	TCCTATTAGC	TCCTATTAGC	GCTAATAGGA
UDP0174	GACGAACAAT	ATTGTTCGTC	TCTCTAGATT	TCTCTAGATT	AATCTAGAGA
UDP0175	CCACTGGTCC	GGACCAGTGG	CGCGAGCCTA	CGCGAGCCTA	TAGGCTCGCG
UDP0176	TGTTAGAAGG	CCTTCTAACA	GATAAGCTCT	GATAAGCTCT	AGAGCTTATC
UDP0177	TATATTCGAG	CTCGAATATA	GAGATGTCGA	GAGATGTCGA	TCGACATCTC
UDP0178	CGCGACGATC	GATCGTCGCG	CTGGATATGT	CTGGATATGT	ACATATCCAG
UDP0179V3	GACAGGTCGG	CCGACCTGTC	TGCTCATAAC	TGCTCATAAC	GTTATGAGCA
UDP0180	TGAGACAGCG	CGCTGTCTCA	ATTACTCACC	ATTACTCACC	GGTGAGTAAT
UDP0181	TGTTCGCATT	AATGCGAACA	AATTGGCGGA	AATTGGCGGA	TCCGCCAATT
UDP0182	TCCAAGAATT	AATTCTTGGA	TTGTCAACTT	TTGTCAACTT	AAGTTGACAA
UDP0183	GCTGTAGGAA	TTCCTACAGC	GGCGAATTCT	GGCGAATTCT	AGAATTCGCC
UDP0184	ATACCTGGAT	ATCCAGGTAT	CAACGTCAGC	CAACGTCAGC	GCTGACGTTG
UDP0185	GTTGGACCGT	ACGGTCCAAC	TCTTACATCA	TCTTACATCA	TGATGTAAGA
UDP0186	ACCAAGTTAC	GTAACTTGGT	CGCCATACCT	CGCCATACCT	AGGTATGGCG
UDP0187	GTGTGGCGCT	AGCGCCACAC	CTAATGTCTT	CTAATGTCTT	AAGACATTAG
UDP0188	GGCAGTAGCA	TGCTACTGCC	CAACCGGAGG	CAACCGGAGG	CCTCCGGTTG
UDP0189	TGCGGTGTTG	CAACACCGCA	GGCAGTAGCA	GGCAGTAGCA	TGCTACTGCC
UDP0190	GATTAAGGTG	CACCTTAATC	TTAGGATAGA	TTAGGATAGA	TCTATCCTAA
UDP0191	CAACATTCAA	TTGAATGTTG	CGCAATCTAG	CGCAATCTAG	CTAGATTGCG
UDP0192	GTGTTACCGG	CCGGTAACAC	GAGTTGTACT	GAGTTGTACT	AGTACAACTC

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Set C Index Adapters

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0193V3	CCGTAACGAT	ATCGTTACGG	GCTCCGGAAG	GCTCCGGAAG	CTTCCGGAGC
UDP0194V3	TGACGTAGGA	TCCTACGTCA	TACTTAAGTG	TACTTAAGTG	CACTTAAGTA
UDP0195V3	GCGATATAAC	GTTATATCGC	AAGACAAGGA	AAGACAAGGA	TCCTTGTCTT
UDP0196V3	GATGGCCAAC	GTTGGCCATC	TGACATTCGT	TGACATTCGT	ACGAATGTCA
UDP0197	ACAACCAGGA	TCCTGGTTGT	CTGACCGGCA	CTGACCGGCA	TGCCGGTCAG
UDP0198	AGCAGAATTA	TAATTCTGCT	TCTCATCAAT	TCTCATCAAT	ATTGATGAGA
UDP0199	CAGTCGTGCG	CGCACGACTG	GGACCAACAG	GGACCAACAG	CTGTTGGTCC
UDP0200	GTCTAACCTC	GAGGTTAGAC	AATGTATTGC	AATGTATTGC	GCAATACATT
UDP0201	GAACTCGGTT	AACCGAGTTC	GATCTCTGGA	GATCTCTGGA	TCCAGAGATC
UDP0202	AGTTATCACA	TGTGATAACT	CAGGCGCCAT	CAGGCGCCAT	ATGGCGCCTG
UDP0203	GTAGCATACT	AGTATGCTAC	TTAATAGACC	TTAATAGACC	GGTCTATTAA
UDP0204	CTTCAGTTAC	GTAACTGAAG	GGAGTCGCGA	GGAGTCGCGA	TCGCGACTCC
UDP0205	AGTCCGAGGA	TCCTCGGACT	AACGCCAGAG	AACGCCAGAG	CTCTGGCGTT
UDP0206	ACAGTTCCAG	CTGGAACTGT	CGTAATTAAC	CGTAATTAAC	GTTAATTACG
UDP0207	CCGCATATTC	GAATATGCGG	ACGAGACTGA	ACGAGACTGA	TCAGTCTCGT
UDP0208	TTATCCGATC	GATCGGATAA	GTATCGGCCG	GTATCGGCCG	CGGCCGATAC
UDP0209	ATAGTCTAGC	GCTAGACTAT	AATACGACAT	AATACGACAT	ATGTCGTATT
UDP0210	TATAGTAGCT	AGCTACTATA	GTTATATGGC	GTTATATGGC	GCCATATAAC
UDP0211	ACTCCGGTGG	CCACCGGAGT	GCCTGCCATG	GCCTGCCATG	CATGGCAGGC
UDP0212	GTGCGGTAAG	CTTACCGCAC	TAAGACCTAT	TAAGACCTAT	ATAGGTCTTA
UDP0213	GATATCCTAA	TTAGGATATC	TATACCATGG	TATACCATGG	CCATGGTATA
UDP0214	TCGCGTATAA	TTATACGCGA	GCCGTCTGTT	GCCGTCTGTT	AACAGACGGC
UDP0215	ATTCTAAGCG	CGCTTAGAAT	CAGAGTGATA	CAGAGTGATA	TATCACTCTG

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0216	AGCGCTTCGG	CCGAAGCGCT	TGCTAACTAT	TGCTAACTAT	ATAGTTAGCA
UDP0217	GTTGATAGTG	CACTATCAAC	TCAGTTAATG	TCAGTTAATG	CATTAACTGA
UDP0218V3	TACGTAGATG	CATCTACGTA	TGTAATTGAG	TGTAATTGAG	CTCAATTACA
UDP0219	CTAACTGTAA	TTACAGTTAG	ACATGCATAT	ACATGCATAT	ATATGCATGT
UDP0220	GCGTACTTAG	CTAAGTACGC	AACATACCTA	AACATACCTA	TAGGTATGTT
UDP0221V3	TGCGCTCTAG	CTAGAGCGCA	GCTTCTAGCA	GCTTCTAGCA	TGCTAGAAGC
UDP0222V3	GCGTGATCGA	TCGATCACGC	CATAGAGCCT	CATAGAGCCT	AGGCTCTATG
UDP0223V3	GAGCCAGGTT	AACCTGGCTC	TGAGTATGTT	TGAGTATGTT	AACATACTCA
UDP0224V3	ACTTCCATAA	TTATGGAAGT	GACAATAACA	GACAATAACA	TGTTATTGTC
UDP0225	GCTTCCACTA	TAGTGGAAGC	AGTACCTATA	AGTACCTATA	TATAGGTACT
UDP0226	AGATATGGCG	CGCCATATCT	GACCGGAGAT	GACCGGAGAT	ATCTCCGGTC
UDP0227V3	TTGAGGCTGC	GCAGCCTCAA	TAAGTGCTAG	TAAGTGCTAG	CTAGCACTTA
UDP0228	TAGCGCTAGT	ACTAGCGCTA	TTACTTCCTC	TTACTTCCTC	GAGGAAGTAA
UDP0229	AGTTAAGAGC	GCTCTTAACT	CACGTCCACC	CACGTCCACC	GGTGGACGTG
UDP0230	CAGATACCAC	GTGGTATCTG	GCTACTATCT	GCTACTATCT	AGATAGTAGC
UDP0231	ACGGCCGTCA	TGACGGCCGT	AGTCAACCAT	AGTCAACCAT	ATGGTTGACT
UDP0232	GTAATTACTG	CAGTAATTAC	CGAGGCGGTA	CGAGGCGGTA	TACCGCCTCG
UDP0233	AAGTCTTGTA	TACAAGACTT	CAGGTGTTCA	CAGGTGTTCA	TGAACACCTG
UDP0234	GTCACCACAG	CTGTGGTGAC	GACAGACAGG	GACAGACAGG	CCTGTCTGTC
UDP0235	ATTAGTGGAG	CTCCACTAAT	TGTACTTGTT	TGTACTTGTT	AACAAGTACA
UDP0236	TGCTAACTAT	ATAGTTAGCA	CTCTAAGTAG	CTCTAAGTAG	CTACTTAGAG
UDP0237	TAAGACCTAT	ATAGGTCTTA	GTCACCACAG	GTCACCACAG	CTGTGGTGAC
UDP0238	TGGTTAAGAA	TTCTTAACCA	TCTACATACC	TCTACATACC	GGTATGTAGA
UDP0239	ACTCTTCCTT	AAGGAAGAGT	CACGTTAGGC	CACGTTAGGC	GCCTAACGTG
UDP0240	GTCTCCTTCC	GGAAGGAGAC	TGGTGAGTCT	TGGTGAGTCT	AGACTCACCA
UDP0241	TCCGCGTTCA	TGAACGCGGA	CTTCGAAGGA	CTTCGAAGGA	TCCTTCGAAG
UDP0242V3	AGACTCTCTT	AAGAGAGTCT	TACGAATCTT	TACGAATCTT	AAGATTCGTA

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0243	GAACCATGAA	TTCATGGTTC	GACATTGTCA	GACATTGTCA	TGACAATGTC
UDP0244V3	TAGCCGAGAG	CTCTCGGCTA	TACCAGATCT	TACCAGATCT	AGATCTGGTA
UDP0245	TGGTCTAGTG	CACTAGACCA	ACTGCCTTAT	ACTGCCTTAT	ATAAGGCAGT
UDP0246	AGTGGATAAT	ATTATCCACT	TACGCACGTA	TACGCACGTA	TACGTGCGTA
UDP0247	GGCACGCCAT	ATGGCGTGCC	CGCTTGAAGT	CGCTTGAAGT	ACTTCAAGCG
UDP0248	GATCTCTGGA	TCCAGAGATC	CTGCACTTCA	CTGCACTTCA	TGAAGTGCAG
UDP0249	TGCTGGACAT	ATGTCCAGCA	CAGCGGACAA	CAGCGGACAA	TTGTCCGCTG
UDP0250	CCGAACGTTG	CAACGTTCGG	GGATCCGCAT	GGATCCGCAT	ATGCGGATCC
UDP0251	ATTAATACGC	GCGTATTAAT	TGCGGTGTTG	TGCGGTGTTG	CAACACCGCA
UDP0252V2	CCAGATTCGG	CCGAATCTGG	ATGAATCAAG	ATGAATCAAG	CTTGATTCAT
UDP0253	GGTATTGAGA	TCTCAATACC	GACGTTCGCG	GACGTTCGCG	CGCGAACGTC
UDP0254	CAAGATGCTT	AAGCATCTTG	CATTCAACAA	CATTCAACAA	TTGTTGAATG
UDP0255	ACGAGACTGA	TCAGTCTCGT	CACGGATTAT	CACGGATTAT	ATAATCCGTG
UDP0256V3	TGTTCTATAC	GTATAGAACA	TGTCACAGGA	TGTCACAGGA	TCCTGTGACA
UDP0257	AGATTGTTAC	GTAACAATCT	CTCTGTATAC	CTCTGTATAC	GTATACAGAG
UDP0258V2	TATACCATGG	CCATGGTATA	TCTCGCGGAG	TCTCGCGGAG	CTCCGCGAGA
UDP0259	AACGGTATGA	TCATACCGTT	GGTAACGCAG	GGTAACGCAG	CTGCGTTACC
UDP0260	CAATGGCGCC	GGCGCCATTG	ACCGCGCAAT	ACCGCGCAAT	ATTGCGCGGT
UDP0261	CTAATTCGCT	AGCGAATTAG	AGCCGGAACA	AGCCGGAACA	TGTTCCGGCT
UDP0262	CATGGTCTAA	TTAGACCATG	TCCTAGGAAG	TCCTAGGAAG	CTTCCTAGGA
UDP0263	ATACTGTGTG	CACACAGTAT	TTGAGCCTAA	TTGAGCCTAA	TTAGGCTCAA
UDP0264	GCCGACAAGA	TCTTGTCGGC	CCACCTGTGT	CCACCTGTGT	ACACAGGTGG
UDP0265V3	TCTCGGTTAG	CTAACCGAGA	TCGATGCGCG	TCGATGCGCG	CGCGCATCGA
UDP0266V3	CCTAGACACT	AGTGTCTAGG	CCTAGAAGCA	CCTAGAAGCA	TGCTTCTAGG
UDP0267V3	GAAGCTCCTC	GAGGAGCTTC	GACGTATACA	GACGTATACA	TGTATACGTC
UDP0268V3	TAGTAGATGA	TCATCTACTA	TAGGCGACTT	TAGGCGACTT	AAGTCGCCTA
UDP0269	GCTCGCCTAC	GTAGGCGAGC	TAGGAGCGCA	TAGGAGCGCA	TGCGCTCCTA

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0270	AGGATAAGTT	AACTTATCCT	GTACTGGCGT	GTACTGGCGT	ACGCCAGTAC
UDP0271	GAGACATAAT	ATTATGTCTC	AGTTAAGAGC	AGTTAAGAGC	GCTCTTAACT
UDP0272	AGCTGTTATA	TATAACAGCT	TCGCGTATAA	TCGCGTATAA	TTATACGCGA
UDP0273	GTATCATTGG	CCAATGATAC	GAGTGTGCCG	GAGTGTGCCG	CGGCACACTC
UDP0274	AATAGGCCTC	GAGGCCTATT	CTAGTCCGGA	CTAGTCCGGA	TCCGGACTAG
UDP0275	CCGCTTAGCT	AGCTAAGCGG	ATTAATACGC	ATTAATACGC	GCGTATTAAT
UDP0276	TCCTAGGAAG	CTTCCTAGGA	CCTAGAGTAT	CCTAGAGTAT	ATACTCTAGG
UDP0277	TCACAGATCG	CGATCTGTGA	TAGGAAGACT	TAGGAAGACT	AGTCTTCCTA
UDP0278	ACTTGTCCAC	GTGGACAAGT	CCGTGGCCTT	CCGTGGCCTT	AAGGCCACGG
UDP0279	TGTACTTGTT	AACAAGTACA	GGATATATCC	GGATATATCC	GGATATATCC
UDP0280	CACTTAATCT	AGATTAAGTG	CACCTCTTGG	CACCTCTTGG	CCAAGAGGTG
UDP0281	CAGAGTGATA	TATCACTCTG	AACGTTACAT	AACGTTACAT	ATGTAACGTT
UDP0282	GGCGAATTCT	AGAATTCGCC	CGGCAAGCTC	CGGCAAGCTC	GAGCTTGCCG
UDP0283	AGTGGTCAGG	CCTGACCACT	TCTTGGCTAT	TCTTGGCTAT	ATAGCCAAGA
UDP0284	CATTCCAGCT	AGCTGGAATG	ACGGAATGCG	ACGGAATGCG	CGCATTCCGT
UDP0285V3	GATGCCAAGG	CCTTGGCATC	GACCGATTCG	GACCGATTCG	CGAATCGGTC
UDP0286V3	AGTACCTATA	TATAGGTACT	TAGGTGAGAT	TAGGTGAGAT	ATCTCACCTA
UDP0287V3	TGTAGACTTG	CAAGTCTACA	CACGTACGTG	CACGTACGTG	CACGTACGTG
UDP0288V3	TCCTCTTCTC	GAGAAGAGGA	TTGACCTAAC	TTGACCTAAC	GTTAGGTCAA

Set D Index Adapters

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0289V2	GCTACTATCT	AGATAGTAGC	GGCACGCCAT	GGCACGCCAT	ATGGCGTGCC
UDP0290V2	GTCTTCTAAT	ATTAGAAGAC	GCAGGCTGGA	GCAGGCTGGA	TCCAGCCTGC
UDP0291V2	ATGTGCGAGC	GCTCGCACAT	ATGGCTTAAT	ATGGCTTAAT	ATTAAGCCAT
UDP0292	TGGCAATATT	AATATTGCCA	CGGTGACACC	CGGTGACACC	GGTGTCACCG
UDP0293	GAATGCACGA	TCGTGCATTC	GCGTTGGTAT	GCGTTGGTAT	ATACCAACGC
UDP0294	CGTGTATCTT	AAGATACACG	TGTGCTAACA	TGTGCTAACA	TGTTAGCACA
UDP0295	ATTCATTGCA	TGCAATGAAT	CCAGAAGTAA	CCAGAAGTAA	TTACTTCTGG
UDP0296	TCCTTCATAG	CTATGAAGGA	CTTATACCTG	CTTATACCTG	CAGGTATAAG
UDP0297	TCTAGTCTTC	GAAGACTAGA	ACTAGAACTT	ACTAGAACTT	AAGTTCTAGT
UDP0298V3	GATAACCTGG	CCAGGTTATC	GAATGCAGTT	GAATGCAGTT	AACTGCATTC
UDP0299	AGTGAGTGAA	TTCACTCACT	TATCATGAGA	TATCATGAGA	TCTCATGATA
UDP0300	GAAGCGGACC	GGTCCGCTTC	CTCACACAAG	CTCACACAAG	CTTGTGTGAG
UDP0301V2	CAAGCCACTA	TAGTGGCTTG	AGTTACTTGG	AGTTACTTGG	CCAAGTAACT
UDP0302	GGACCTCAAT	ATTGAGGTCC	CGGATTATAT	CGGATTATAT	ATATAATCCG
UDP0303	GAGTCTCTCC	GGAGAGACTC	TTGAAGCAGA	TTGAAGCAGA	TCTGCTTCAA
UDP0304	AACGGAGCGG	CCGCTCCGTT	TACGGCGAAG	TACGGCGAAG	CTTCGCCGTA
UDP0305	TGTGATGTAT	ATACATCACA	TCTCCATTGA	TCTCCATTGA	TCAATGGAGA
UDP0306	AACATACCTA	TAGGTATGTT	CGAGACCAAG	CGAGACCAAG	CTTGGTCTCG
UDP0307	GTGCTAGGTG	CACCTAGCAC	TGCTGGACAT	TGCTGGACAT	ATGTCCAGCA
UDP0308	CATACTTGAA	TTCAAGTATG	GATGGTATCG	GATGGTATCG	CGATACCATC
UDP0309	CTTGTCTTAA	TTAAGACAAG	GGCTTAATTG	GGCTTAATTG	CAATTAAGCC
UDP0310	AAGAGAGGTG	CACCTCTCTT	CTCGACTCCT	CTCGACTCCT	AGGAGTCGAG
UDP0311	TGCACGAGAA	TTCTCGTGCA	ATACACAGAG	ATACACAGAG	CTCTGTGTAT
UDP0312	ACTTCCTAGC	GCTAGGAAGT	TCTCGGACGA	TCTCGGACGA	TCGTCCGAGA
UDP0313	GTGCTATTAA	TTAATAGCAC	ACCACGTCTG	ACCACGTCTG	CAGACGTGGT
UDP0314	AGCGTGAATG	CATTCACGCT	GTTGTACTCA	GTTGTACTCA	TGAGTACAAC
UDP0315	CCTTAGTGCC	GGCACTAAGG	TCAGGTCAAC	TCAGGTCAAC	GTTGACCTGA

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0316	TGTACCGAAT	ATTCGGTACA	AGTCCGAGGA	AGTCCGAGGA	TCCTCGGACT
UDP0317	GGAGATTAGT	ACTAATCTCC	CACTTAATCT	CACTTAATCT	AGATTAAGTG
UDP0318	TACTAACACA	TGTGTTAGTA	TACTCTGTTA	TACTCTGTTA	TAACAGAGTA
UDP0319	TAGGTCGTTG	CAACGACCTA	GCGACTCGAT	GCGACTCGAT	ATCGAGTCGC
UDP0320	ATGCCGACCG	CGGTCGGCAT	CTAGGCAAGG	CTAGGCAAGG	CCTTGCCTAG
UDP0321V3	GCGGAGTTAC	GTAACTCCGC	AATAGAACGG	AATAGAACGG	CCGTTCTATT
UDP0322	TGCCTACGAG	CTCGTAGGCA	TCATCCTCTT	TCATCCTCTT	AAGAGGATGA
UDP0323	ACTAGAACTT	AAGTTCTAGT	GGTAAGATAA	GGTAAGATAA	TTATCTTACC
UDP0324	CACCTCTTGG	CCAAGAGGTG	AACGAGCCAG	AACGAGCCAG	CTGGCTCGTT
UDP0325	AAGCAGATAT	ATATCTGCTT	TAGACAATCT	TAGACAATCT	AGATTGTCTA
UDP0326	GCCAGATCCA	TGGATCTGGC	CAATGCTGAA	CAATGCTGAA	TTCAGCATTG
UDP0327	TTGGATTCAA	TTGAATCCAA	GTCACGGTGT	GTCACGGTGT	ACACCGTGAC
UDP0328	ACTAGCCGTG	CACGGCTAGT	GGTGTACAAG	GGTGTACAAG	CTTGTACACC
UDP0329	CGGCAAGCTC	GAGCTTGCCG	AGGTTGCAGG	AGGTTGCAGG	CCTGCAACCT
UDP0330	GAAGCTAGCT	AGCTAGCTTC	TAATACGGAG	TAATACGGAG	CTCCGTATTA
UDP0331	ACAAGGATTG	CAATCCTTGT	CGAAGACGCA	CGAAGACGCA	TGCGTCTTCG
UDP0332	GCAACAGGTG	CACCTGTTGC	ATTGACACAT	ATTGACACAT	ATGTGTCAAT
UDP0333	CAAGGTGACG	CGTCACCTTG	CAGCCGATTG	CAGCCGATTG	CAATCGGCTG
UDP0334	ACCAGTCATT	AATGACTGGT	TCTCACGCGT	TCTCACGCGT	ACGCGTGAGA
UDP0335	CCGGAATCAT	ATGATTCCGG	CTCTGACGTG	CTCTGACGTG	CACGTCAGAG
UDP0336	TTGAGCCTAA	TTAGGCTCAA	TCGAATGGAA	TCGAATGGAA	TTCCATTCGA
UDP0337	CCACCTTACA	TGTAAGGTGG	AAGGCCTTGG	AAGGCCTTGG	CCAAGGCCTT
UDP0338	GTTGCAGTTG	CAACTGCAAC	TGAACGCAAC	TGAACGCAAC	GTTGCGTTCA
UDP0339	TCACTCATGT	ACATGAGTGA	CCGCTTAGCT	CCGCTTAGCT	AGCTAAGCGG
UDP0340	GACTGGTTGC	GCAACCAGTC	CACCGAGGAA	CACCGAGGAA	TTCCTCGGTG
UDP0341	ATCGTCGCTC	GAGCGACGAT	CGTATAATCA	CGTATAATCA	TGATTATACG
UDP0342	GGTGCGTTCG	CGAACGCACC	ATGACAGAAC	ATGACAGAAC	GTTCTGTCAT

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0343	CGGCGTAAGA	TCTTACGCCG	ATTCATTGCA	ATTCATTGCA	TGCAATGAAT
UDP0344	GACATCAGCT	AGCTGATGTC	TCATGTCCTG	TCATGTCCTG	CAGGACATGA
UDP0345	ACTAATTCAG	CTGAATTAGT	AATTCGATCG	AATTCGATCG	CGATCGAATT
UDP0346	TTCCTCCTTA	TAAGGAGGAA	TTCCGACATT	TTCCGACATT	AATGTCGGAA
UDP0347	TGTGTAAGCT	AGCTTACACA	TGGCACGACC	TGGCACGACC	GGTCGTGCCA
UDP0348	GTGGCTGGTT	AACCAGCCAC	GCCACAGCAC	GCCACAGCAC	GTGCTGTGGC
UDP0349	TCGACTTAAG	CTTAAGTCGA	CAGTAGTTGT	CAGTAGTTGT	ACAACTACTG
UDP0350	CACGTTAGGC	GCCTAACGTG	AGCTCTCAAG	AGCTCTCAAG	CTTGAGAGCT
UDP0351	TGAAGTAAGT	ACTTACTTCA	TCTGGAATTA	TCTGGAATTA	TAATTCCAGA
UDP0352	ACGGAATGCG	CGCATTCCGT	ATTAGTGGAG	ATTAGTGGAG	CTCCACTAAT
UDP0353	GTGTGATATC	GATATCACAC	GACTATATGT	GACTATATGT	ACATATAGTC
UDP0354	ACACAGCGCT	AGCGCTGTGT	CGTTCGGAAC	CGTTCGGAAC	GTTCCGAACG
UDP0355	AGCGCGGTGA	TCACCGCGCT	TCGATACTAG	TCGATACTAG	CTAGTATCGA
UDP0356	CAAGGCTATC	GATAGCCTTG	TACCACAATG	TACCACAATG	CATTGTGGTA
UDP0357	TGCGTCCAGG	CCTGGACGCA	TGGTATACCA	TGGTATACCA	TGGTATACCA
UDP0358	AGGTGCGTAA	TTACGCACCT	GCTCTCGTTG	GCTCTCGTTG	CAACGAGAGC
UDP0359	GCAGCAACGA	TCGTTGCTGC	GTCTCGTGAA	GTCTCGTGAA	TTCACGAGAC
UDP0360	ATCCTTGTCG	CGACAAGGAT	AAGGCCACCT	AAGGCCACCT	AGGTGGCCTT
UDP0361	GAAGGTACAC	GTGTACCTTC	CTGTGAGCTA	CTGTGAGCTA	TAGCTCACAG
UDP0362	TTGGCCAGGT	ACCTGGCCAA	TCACAGATCG	TCACAGATCG	CGATCTGTGA
UDP0363	AGGCCAGACA	TGTCTGGCCT	AGAAGCCAAT	AGAAGCCAAT	ATTGGCTTCT
UDP0364	AGCATTAACT	AGTTAATGCT	ACTGCAGCCG	ACTGCAGCCG	CGGCTGCAGT
UDP0365	ATTACTCACC	GGTGAGTAAT	AACATCTAGT	AACATCTAGT	ACTAGATGTT
UDP0366	GCGCAGAGTA	TACTCTGCGC	CCTTACTATG	CCTTACTATG	CATAGTAAGG
UDP0367	CGCCATACCT	AGGTATGGCG	GTGGCGAGAC	GTGGCGAGAC	GTCTCGCCAC
UDP0368	GCAGGCTGGA	TCCAGCCTGC	GCCAGATCCA	GCCAGATCCA	TGGATCTGGC
UDP0369V3	TGAATTCATC	GATGAATTCA	TGCTGTGATT	TGCTGTGATT	AATCACAGCA

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0370V3	GCTGCCGGAT	ATCCGGCAGC	GATCGAATAA	GATCGAATAA	TTATTCGATC
UDP0371V3	CATGGTTCGT	ACGAACCATG	ACTGAATTAC	ACTGAATTAC	GTAATTCAGT
UDP0372V3	TACTTGGTTG	CAACCAAGTA	CCATCCACGC	CCATCCACGC	GCGTGGATGG
UDP0373	TGAACGCAAC	GTTGCGTTCA	GTTGCAGTTG	GTTGCAGTTG	CAACTGCAAC
UDP0374	GTGGTTGAAG	CTTCAACCAC	TTATGCGCCT	TTATGCGCCT	AGGCGCATAA
UDP0375	ACTGAATAGA	TCTATTCAGT	TCTCAGTACA	TCTCAGTACA	TGTACTGAGA
UDP0376	GGACGTCTTG	CAAGACGTCC	AGTATACGGA	AGTATACGGA	TCCGTATACT
UDP0377	GTTGTACTCA	TGAGTACAAC	ACGCTTGGAC	ACGCTTGGAC	GTCCAAGCGT
UDP0378	AGAACCGCGG	CCGCGGTTCT	GGAGTAGATT	GGAGTAGATT	AATCTACTCC
UDP0379	CAGTATCAAT	ATTGATACTG	TACACGCTCC	TACACGCTCC	GGAGCGTGTA
UDP0380	TCCATAATCC	GGATTATGGA	TCCGATAGAG	TCCGATAGAG	CTCTATCGGA
UDP0381	ATGAGAACCA	TGGTTCTCAT	CTCAAGGCCG	CTCAAGGCCG	CGGCCTTGAG
UDP0382	TCGTGGTTGA	TCAACCACGA	CAAGTTCATA	CAAGTTCATA	TATGAACTTG
UDP0383	CAAGTTCATA	TATGAACTTG	AATCCTTAGG	AATCCTTAGG	CCTAAGGATT
UDP0384	CTTAACCACT	AGTGGTTAAG	GGTGGAATAC	GGTGGAATAC	GTATTCCACC

Illumina Unique Dual Indexes, LT

The following table depicts the index plate layout for Illumina Unique Dual Indexes, LT.

	1	2	3	4	5	6	7	8	9	10	11	12
A	UDP0289V2	UDP0105	UDP0113	UDP0121	UDP0129	UDP0329	empty	empty	empty	empty	empty	empty
B	UDP0290V2	UDP0106	UDP0114	UDP0122	UDP0130	UDP0330	empty	empty	empty	empty	empty	empty
C	UDP0291V2	UDP0107	UDP0115	UDP0123	UDP0131	UDP0331	empty	empty	empty	empty	empty	empty
D	UDP0292	UDP0108	UDP0116	UDP0124	UDP0132	UDP0332	empty	empty	empty	empty	empty	empty
E	UDP0293	UDP0109	UDP0117	UDP0125	UDP0133	UDP0333	empty	empty	empty	empty	empty	empty
F	UDP0294	UDP0110	UDP0118	UDP0126	UDP0134	UDP0334	empty	empty	empty	empty	empty	empty
G	UDP0295	UDP0111	UDP0119	UDP0127	UDP0135	UDP0335	empty	empty	empty	empty	empty	empty
H	UDP0296	UDP0112	UDP0120	UDP0128	UDP0136	UDP0336	empty	empty	empty	empty	empty	empty

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Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0105	ACGATTGCTG	CAGCAATCGT	TGTGATGTAT	TGTGATGTAT	ATACATCACA
UDP0106	TTCTACAGAA	TTCTGTAGAA	GAGCGCAATA	GAGCGCAATA	TATTGCGCTC
UDP0107	TATTGCGTTC	GAACGCAATA	ATCTTACTGT	ATCTTACTGT	ACAGTAAGAT
UDP0108	CATGAGTACT	AGTACTCATG	ATGTCGTGGT	ATGTCGTGGT	ACCACGACAT
UDP0109	TAATTCTACC	GGTAGAATTA	GTAGCCATCA	GTAGCCATCA	TGATGGCTAC
UDP0110	ACGCTAATTA	TAATTAGCGT	TGGTTAAGAA	TGGTTAAGAA	TTCTTAACCA
UDP0111	CCTTGTTAAT	ATTAACAAGG	TGTTGTTCGT	TGTTGTTCGT	ACGAACAACA
UDP0112	GTAGCCATCA	TGATGGCTAC	CCAACAACAT	CCAACAACAT	ATGTTGTTGG
UDP0113	CTTGTAATTC	GAATTACAAG	ACCGGCTCAG	ACCGGCTCAG	CTGAGCCGGT
UDP0114	TCCAATTCTA	TAGAATTGGA	GTTAATCTGA	GTTAATCTGA	TCAGATTAAC
UDP0115	AGAGCTGCCT	AGGCAGCTCT	CGGCTAACGT	CGGCTAACGT	ACGTTAGCCG
UDP0116	CTTCGCCGAT	ATCGGCGAAG	TCCAAGAATT	TCCAAGAATT	AATTCTTGGA
UDP0117	TCGGTCACGG	CCGTGACCGA	CCGAACGTTG	CCGAACGTTG	CAACGTTCGG
UDP0118	GAACAAGTAT	ATACTTGTTC	TAACCGCCGA	TAACCGCCGA	TCGGCGGTTA
UDP0119	AATTGGCGGA	TCCGCCAATT	CTCCGTGCTG	CTCCGTGCTG	CAGCACGGAG
UDP0120	GGCCTGTCCT	AGGACAGGCC	CATTCCAGCT	CATTCCAGCT	AGCTGGAATG
UDP0121	TAGGTTCTCT	AGAGAACCTA	GGTTATGCTA	GGTTATGCTA	TAGCATAACC
UDP0122	ACACAATATC	GATATTGTGT	ACCACACGGT	ACCACACGGT	ACCGTGTGGT
UDP0123	TTCCTGTACG	CGTACAGGAA	TAGGTTCTCT	TAGGTTCTCT	AGAGAACCTA
UDP0124	GGTAACGCAG	CTGCGTTACC	TATGGCTCGA	TATGGCTCGA	TCGAGCCATA
UDP0125	TCCACGGCCT	AGGCCGTGGA	CTCGTGCGTT	CTCGTGCGTT	AACGCACGAG
UDP0126	GATACCTCCT	AGGAGGTATC	CCAGTTGGCA	CCAGTTGGCA	TGCCAACTGG
UDP0127	CAACGTCAGC	GCTGACGTTG	TGTTCGCATT	TGTTCGCATT	AATGCGAACA
UDP0128	CGGTTATTAG	CTAATAACCG	AACCGCATCG	AACCGCATCG	CGATGCGGTT
UDP0129	CGCGCCTAGA	TCTAGGCGCG	CGAAGGTTAA	CGAAGGTTAA	TTAACCTTCG

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0130	TCTTGGCTAT	ATAGCCAAGA	AGTGCCACTG	AGTGCCACTG	CAGTGGCACT
UDP0131	TCACACCGAA	TTCGGTGTGA	GAACAAGTAT	GAACAAGTAT	ATACTTGTTC
UDP0132	AACGTTACAT	ATGTAACGTT	ACGATTGCTG	ACGATTGCTG	CAGCAATCGT
UDP0133	CGGCCTCGTT	AACGAGGCCG	ATACCTGGAT	ATACCTGGAT	ATCCAGGTAT
UDP0134	CATAACACCA	TGGTGTTATG	TCCAATTCTA	TCCAATTCTA	TAGAATTGGA
UDP0135	ACAGAGGCCA	TGGCCTCTGT	TGAGACAGCG	TGAGACAGCG	CGCTGTCTCA
UDP0136	TGGTGCCTGG	CCAGGCACCA	ACGCTAATTA	ACGCTAATTA	TAATTAGCGT
UDP0289V2	GCTACTATCT	AGATAGTAGC	GGCACGCCAT	GGCACGCCAT	ATGGCGTGCC
UDP0290V2	GTCTTCTAAT	ATTAGAAGAC	GCAGGCTGGA	GCAGGCTGGA	TCCAGCCTGC
UDP0291V2	ATGTGCGAGC	GCTCGCACAT	ATGGCTTAAT	ATGGCTTAAT	ATTAAGCCAT
UDP0292	TGGCAATATT	AATATTGCCA	CGGTGACACC	CGGTGACACC	GGTGTCACCG
UDP0293	GAATGCACGA	TCGTGCATTC	GCGTTGGTAT	GCGTTGGTAT	ATACCAACGC
UDP0294	CGTGTATCTT	AAGATACACG	TGTGCTAACA	TGTGCTAACA	TGTTAGCACA
UDP0295	ATTCATTGCA	TGCAATGAAT	CCAGAAGTAA	CCAGAAGTAA	TTACTTCTGG
UDP0296	TCCTTCATAG	CTATGAAGGA	CTTATACCTG	CTTATACCTG	CAGGTATAAG
UDP0329	CGGCAAGCTC	GAGCTTGCCG	AGGTTGCAGG	AGGTTGCAGG	CCTGCAACCT
UDP0330	GAAGCTAGCT	AGCTAGCTTC	TAATACGGAG	TAATACGGAG	CTCCGTATTA
UDP0331	ACAAGGATTG	CAATCCTTGT	CGAAGACGCA	CGAAGACGCA	TGCGTCTTCG
UDP0332	GCAACAGGTG	CACCTGTTGC	ATTGACACAT	ATTGACACAT	ATGTGTCAAT
UDP0333	CAAGGTGACG	CGTCACCTTG	CAGCCGATTG	CAGCCGATTG	CAATCGGCTG
UDP0334	ACCAGTCATT	AATGACTGGT	TCTCACGCGT	TCTCACGCGT	ACGCGTGAGA
UDP0335	CCGGAATCAT	ATGATTCCGG	CTCTGACGTG	CTCTGACGTG	CACGTCAGAG
UDP0336	TTGAGCCTAA	TTAGGCTCAA	TCGAATGGAA	TCGAATGGAA	TTCCATTCGA

Illumina Single Cell RNA Indexes

Do not use quality trimming or adapter trimming when converting BCL files into FASTQ files. When using a sample sheet, make sure that no adapter reads are listed under Adapter, Adapter Read 1, or Adapter Read 2.

Illumina Single Cell Unique Dual Indexes (96 indexes, 96 samples)

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
SCUDP0001	CGCTCAGTTC	GAACTGAGCG	TCGTGGAGCG	TCGTGGAGCG	CGCTCCACGA
SCUDP0002	TATCTGACCT	AGGTCAGATA	CTACAAGATA	CTACAAGATA	TATCTTGTAG
SCUDP0003V3	TCGGATGTCG	CGACATCCGA	TACGTTCATT	TACGTTCATT	AATGAACGTA
SCUDP0004	CTTATGGAAT	ATTCCATAAG	TGCCTGGTGG	TGCCTGGTGG	CCACCAGGCA
SCUDP0005V3	TCCTATTGTG	CACAATAGGA	TCCATCCGAG	TCCATCCGAG	CTCGGATGGA
SCUDP0006	GCGCGATGTT	AACATCGCGC	GTCCACTTGT	GTCCACTTGT	ACAAGTGGAC
SCUDP0007	AGAGCACTAG	CTAGTGCTCT	TGGAACAGTA	TGGAACAGTA	TACTGTTCCA
SCUDP0008	TGCCTTGATC	GATCAAGGCA	CCTTGTTAAT	CCTTGTTAAT	ATTAACAAGG
SCUDP0009	CTACTCAGTC	GACTGAGTAG	GTTGATAGTG	GTTGATAGTG	CACTATCAAC
SCUDP0010	TCGTCTGACT	AGTCAGACGA	ACCAGCGACA	ACCAGCGACA	TGTCGCTGGT
SCUDP0011	GAACATACGG	CCGTATGTTC	CATACACTGT	CATACACTGT	ACAGTGTATG
SCUDP0012	CCTATGACTC	GAGTCATAGG	GTGTGGCGCT	GTGTGGCGCT	AGCGCCACAC
SCUDP0013	TAATGGCAAG	CTTGCCATTA	ATCACGAAGG	ATCACGAAGG	CCTTCGTGAT
SCUDP0014	GTGCCGCTTC	GAAGCGGCAC	CGGCTCTACT	CGGCTCTACT	AGTAGAGCCG
SCUDP0015	CGGCAATGGA	TCCATTGCCG	GAATGCACGA	GAATGCACGA	TCGTGCATTC
SCUDP0016	GCCGTAACCG	CGGTTACGGC	AAGACTATAG	AAGACTATAG	CTATAGTCTT
SCUDP0017	AACCATTCTC	GAGAATGGTT	TCGGCAGCAA	TCGGCAGCAA	TTGCTGCCGA
SCUDP0018	GGTTGCCTCT	AGAGGCAACC	CTAATGATGG	CTAATGATGG	CCATCATTAG
SCUDP0019	CTAATGATGG	CCATCATTAG	GGTTGCCTCT	GGTTGCCTCT	AGAGGCAACC
SCUDP0020	TCGGCCTATC	GATAGGCCGA	CGCACATGGC	CGCACATGGC	GCCATGTGCG
SCUDP0021	AGTCAACCAT	ATGGTTGACT	GGCCTGTCCT	GGCCTGTCCT	AGGACAGGCC
SCUDP0022	GAGCGCAATA	TATTGCGCTC	CTGTGTTAGG	CTGTGTTAGG	CCTAACACAG
SCUDP0023	AACAAGGCGT	ACGCCTTGTT	TAAGGAACGT	TAAGGAACGT	ACGTTCCTTA

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
SCUDP0024	GTATGTAGAA	TTCTACATAC	CTAACTGTAA	CTAACTGTAA	TTACAGTTAG
SCUDP0025	TTCTATGGTT	AACCATAGAA	GGCGAGATGG	GGCGAGATGG	CCATCTCGCC
SCUDP0026	CCTCGCAACC	GGTTGCGAGG	AATAGAGCAA	AATAGAGCAA	TTGCTCTATT
SCUDP0027	TGGATGCTTA	TAAGCATCCA	TCAATCCATT	TCAATCCATT	AATGGATTGA
SCUDP0028	ATGTCGTGGT	ACCACGACAT	TCGTATGCGG	TCGTATGCGG	CCGCATACGA
SCUDP0029	AGAGTGCGGC	GCCGCACTCT	TCCGACCTCG	TCCGACCTCG	CGAGGTCGGA
SCUDP0030	TGCCTGGTGG	CCACCAGGCA	CTTATGGAAT	CTTATGGAAT	ATTCCATAAG
SCUDP0031	TGCGTGTCAC	GTGACACGCA	GCTTACGGAC	GCTTACGGAC	GTCCGTAAGC
SCUDP0032	CATACACTGT	ACAGTGTATG	GAACATACGG	GAACATACGG	CCGTATGTTC
SCUDP0033	CGTATAATCA	TGATTATACG	GTCGATTACA	GTCGATTACA	TGTAATCGAC
SCUDP0034	TACGCGGCTG	CAGCCGCGTA	ACTAGCCGTG	ACTAGCCGTG	CACGGCTAGT
SCUDP0035	GCGAGTTACC	GGTAACTCGC	AAGTTGGTGA	AAGTTGGTGA	TCACCAACTT
SCUDP0036	TACGGCCGGT	ACCGGCCGTA	TGGCAATATT	TGGCAATATT	AATATTGCCA
SCUDP0037	GTCGATTACA	TGTAATCGAC	GATCACCGCG	GATCACCGCG	CGCGGTGATC
SCUDP0038	CTGTCTGCAC	GTGCAGACAG	TACCATCCGT	TACCATCCGT	ACGGATGGTA
SCUDP0039	CAGCCGATTG	CAATCGGCTG	GCTGTAGGAA	GCTGTAGGAA	TTCCTACAGC
SCUDP0040	TGACTACATA	TATGTAGTCA	CGCACTAATG	CGCACTAATG	CATTAGTGCG
SCUDP0041	ATTGCCGAGT	ACTCGGCAAT	GACAACTGAA	GACAACTGAA	TTCAGTTGTC
SCUDP0042	GCCATTAGAC	GTCTAATGGC	AGTGGTCAGG	AGTGGTCAGG	CCTGACCACT
SCUDP0043	GGCGAGATGG	CCATCTCGCC	TTCTATGGTT	TTCTATGGTT	AACCATAGAA
SCUDP0044	TGGCTCGCAG	CTGCGAGCCA	AATCCGGCCA	AATCCGGCCA	TGGCCGGATT
SCUDP0045	TAGAATAACG	CGTTATTCTA	CCATAAGGTT	CCATAAGGTT	AACCTTATGG
SCUDP0046V3	TCCATGTTGC	GCAACATGGA	CTTGTCTTAA	CTTGTCTTAA	TTAAGACAAG
SCUDP0047	TATCCAGGAC	GTCCTGGATA	CGGTGGCGAA	CGGTGGCGAA	TTCGCCACCG
SCUDP0048	AGTGCCACTG	CAGTGGCACT	TAACAATAGG	TAACAATAGG	CCTATTGTTA
SCUDP0049	GTGCAACACT	AGTGTTGCAC	CTGGTACACG	CTGGTACACG	CGTGTACCAG
SCUDP0050	ACATGGTGTC	GACACCATGT	TCAACGTGTA	TCAACGTGTA	TACACGTTGA

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
SCUDP0051	GACAGACAGG	CCTGTCTGTC	ACTGTTGTGA	ACTGTTGTGA	TCACAACAGT
SCUDP0052	TCTTACATCA	TGATGTAAGA	GTGCGTCCTT	GTGCGTCCTT	AAGGACGCAC
SCUDP0053V3	TACCGAACTA	TAGTTCGGTA	CCATGTGTAG	CCATGTGTAG	CTACACATGG
SCUDP0054V3	GTAGTAATAG	CTATTACTAC	GAGTCTCTCC	GAGTCTCTCC	GGAGAGACTC
SCUDP0055V3	GGTTATGCTA	TAGCATAACC	GCTATGCGCA	GCTATGCGCA	TGCGCATAGC
SCUDP0056V3	ACAATAGAGT	ACTCTATTGT	ATCGCATATG	ATCGCATATG	CATATGCGAT
SCUDP0057	TTAGGATAGA	TCTATCCTAA	CGTCGACTGG	CGTCGACTGG	CCAGTCGACG
SCUDP0058	CCGAAGCGAG	CTCGCTTCGG	TACTAGTCAA	TACTAGTCAA	TTGACTAGTA
SCUDP0059	GGACCAACAG	CTGTTGGTCC	ATAGACCGTT	ATAGACCGTT	AACGGTCTAT
SCUDP0060	TTCCAGGTAA	TTACCTGGAA	ACAGTTCCAG	ACAGTTCCAG	CTGGAACTGT
SCUDP0061	TGATTAGCCA	TGGCTAATCA	AGGCATGTAG	AGGCATGTAG	CTACATGCCT
SCUDP0062	TAACAGTGTT	AACACTGTTA	GCAAGTCTCA	GCAAGTCTCA	TGAGACTTGC
SCUDP0063	ACCGCGCAAT	ATTGCGCGGT	TTGGCTCCGC	TTGGCTCCGC	GCGGAGCCAA
SCUDP0064	GTTCGCGCCA	TGGCGCGAAC	AACTGATACT	AACTGATACT	AGTATCAGTT
SCUDP0065	AGACACATTA	TAATGTGTCT	GTAAGGCATA	GTAAGGCATA	TATGCCTTAC
SCUDP0066	GCGTTGGTAT	ATACCAACGC	AATTGCTGCG	AATTGCTGCG	CGCAGCAATT
SCUDP0067	AGCACATCCT	AGGATGTGCT	TTACAATTCC	TTACAATTCC	GGAATTGTAA
SCUDP0068	TTGTTCCGTG	CACGGAACAA	AACCTAGCAC	AACCTAGCAC	GTGCTAGGTT
SCUDP0069V3	AAGGCCTTGG	CCAAGGCCTT	TCGAAGTACT	TCGAAGTACT	AGTACTTCGA
SCUDP0070V3	TGTGGAGTAA	TTACTCCACA	GACACCGATG	GACACCGATG	CATCGGTGTC
SCUDP0071V3	CACTTCTACT	AGTAGAAGTG	CTAGCGTCGA	CTAGCGTCGA	TCGACGCTAG
SCUDP0072V3	TGGACTCGTA	TACGAGTCCA	TAGCGAAGCA	TAGCGAAGCA	TGCTTCGCTA
SCUDP0073V3	TATCATGAGA	TCTCATGATA	AACACGTGGA	AACACGTGGA	TCCACGTGTT
SCUDP0074V3	CTTGGCCTCG	CGAGGCCAAG	GTGTTACCGG	GTGTTACCGG	CCGGTAACAC
SCUDP0075V3	GTCTCGTGAA	TTCACGAGAC	AGATTGTTAC	AGATTGTTAC	GTAACAATCT
SCUDP0076V3	CCATCCACGC	GCGTGGATGG	TTGACCAATG	TTGACCAATG	CATTGGTCAA
SCUDP0077	GGATACCAGA	TCTGGTATCC	CGTTGCTTAC	CGTTGCTTAC	GTAAGCAACG

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
SCUDP0078	CGCACTAATG	CATTAGTGCG	TGACTACATA	TGACTACATA	TATGTAGTCA
SCUDP0079	TCCTGACCGT	ACGGTCAGGA	CGGCCTCGTT	CGGCCTCGTT	AACGAGGCCG
SCUDP0080	CTGGCTTGCC	GGCAAGCCAG	CAAGCATCCG	CAAGCATCCG	CGGATGCTTG
SCUDP0081	ACCAGCGACA	TGTCGCTGGT	TCGTCTGACT	TCGTCTGACT	AGTCAGACGA
SCUDP0082	TTGTAACGGT	ACCGTTACAA	CTCATAGCGA	CTCATAGCGA	TCGCTATGAG
SCUDP0083	GTAAGGCATA	TATGCCTTAC	AGACACATTA	AGACACATTA	TAATGTGTCT
SCUDP0084V3	TAGATCCAGT	ACTGGATCTA	TCGCCGCTAG	TCGCCGCTAG	CTAGCGGCGA
SCUDP0085	TTAGGTACCA	TGGTACCTAA	CATGAGTACT	CATGAGTACT	AGTACTCATG
SCUDP0086	GGAATTCCAA	TTGGAATTCC	ACGTCAATAC	ACGTCAATAC	GTATTGACGT
SCUDP0087	CATGTAGAGG	CCTCTACATG	GATACCTCCT	GATACCTCCT	AGGAGGTATC
SCUDP0088	TACACGCTCC	GGAGCGTGTA	ATCCGTAAGT	ATCCGTAAGT	ACTTACGGAT
SCUDP0089	GCTTACGGAC	GTCCGTAAGC	CGTGTATCTT	CGTGTATCTT	AAGATACACG
SCUDP0090	CGCTTGAAGT	ACTTCAAGCG	GAACCATGAA	GAACCATGAA	TTCATGGTTC
SCUDP0091	CGCCTTCTGA	TCAGAAGGCG	GGCCATCATA	GGCCATCATA	TATGATGGCC
SCUDP0092	ATACCAACGC	GCGTTGGTAT	ACATACTTCC	ACATACTTCC	GGAAGTATGT
SCUDP0093	CTGGATATGT	ACATATCCAG	TATGTGCAAT	TATGTGCAAT	ATTGCACATA
SCUDP0094	CAATCTATGA	TCATAGATTG	GATTAAGGTG	GATTAAGGTG	CACCTTAATC
SCUDP0095	GGTGGAATAC	GTATTCCACC	ATGTAGACAA	ATGTAGACAA	TTGTCTACAT
SCUDP0096	TGGACGGAGG	CCTCCGTCCA	CACATCGGTG	CACATCGGTG	CACCGATGTG

Illumina Single Cell UDI Mix Strip

Well	Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
Mix 1	SCUDP0017	AACCATTCTC	GAGAATGGTT	TCGGCAGCAA	TCGGCAGCAA	TTGCTGCCGA

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Well	Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
Mix 2	SCUDP0018	GGTTGCCTCT	AGAGGCAACC	CTAATGATGG	CTAATGATGG	CCATCATTAG
Mix 3	SCUDP0019	CTAATGATGG	CCATCATTAG	GGTTGCCTCT	GGTTGCCTCT	AGAGGCAACC
Mix 4	SCUDP0020	TCGGCCTATC	GATAGGCCGA	CGCACATGGC	CGCACATGGC	GCCATGTGCG
Mix 5	SCUDP0021	AGTCAACCAT	ATGGTTGACT	GGCCTGTCCT	GGCCTGTCCT	AGGACAGGCC
Mix 6	SCUDP0022	GAGCGCAATA	TATTGCGCTC	CTGTGTTAGG	CTGTGTTAGG	CCTAACACAG
Mix 7	SCUDP0023	AACAAGGCGT	ACGCCTTGTT	TAAGGAACGT	TAAGGAACGT	ACGTTCCTTA
Mix 8	SCUDP0024	GTATGTAGAA	TTCTACATAC	CTAACTGTAA	CTAACTGTAA	TTACAGTTAG

IDT for Illumina UD Indexes

The IDT for Illumina Unique Dual (UD) index adapters are arranged in the plate to enforce the recommended pairing strategy. The index adapters are 10 bases long, instead of the typical eight bases.

The IDT for Illumina UD Indexes include the following:

- IDT for Illumina DNA/RNA UD Indexes
- IDT for Illumina PCR UD Indexes
- IDT for Illumina Nextera DNA UD Indexes

Index 1 (i7) Adapters

`CAAGCAGAAGACGGCATACGAGAT[i7]GTCTCGTGGGCTCGG`

Index 2 (i5) Adapters

`AATGATACGGCGACCACCGAGATCTACAC[i5]TCGTCGGCAGCGTC`

Plate A/Set 1 Index Adapters

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0001	CGCTCAGTTC	GAACTGAGCG	TCGTGGAGCG	TCGTGGAGCG	CGCTCCACGA
UDP0002	TATCTGACCT	AGGTCAGATA	CTACAAGATA	CTACAAGATA	TATCTTGTAG
UDP0003	ATATGAGACG	CGTCTCATAT	TATAGTAGCT	TATAGTAGCT	AGCTACTATA
UDP0004	CTTATGGAAT	ATTCCATAAG	TGCCTGGTGG	TGCCTGGTGG	CCACCAGGCA
UDP0005	TAATCTCGTC	GACGAGATTA	ACATTATCCT	ACATTATCCT	AGGATAATGT
UDP0006	GCGCGATGTT	AACATCGCGC	GTCCACTTGT	GTCCACTTGT	ACAAGTGGAC
UDP0007	AGAGCACTAG	CTAGTGCTCT	TGGAACAGTA	TGGAACAGTA	TACTGTTCCA
UDP0008	TGCCTTGATC	GATCAAGGCA	CCTTGTTAAT	CCTTGTTAAT	ATTAACAAGG
UDP0009	CTACTCAGTC	GACTGAGTAG	GTTGATAGTG	GTTGATAGTG	CACTATCAAC
UDP0010	TCGTCTGACT	AGTCAGACGA	ACCAGCGACA	ACCAGCGACA	TGTCGCTGGT
UDP0011	GAACATACGG	CCGTATGTTC	CATACACTGT	CATACACTGT	ACAGTGTATG
UDP0012	CCTATGACTC	GAGTCATAGG	GTGTGGCGCT	GTGTGGCGCT	AGCGCCACAC
UDP0013	TAATGGCAAG	CTTGCCATTA	ATCACGAAGG	ATCACGAAGG	CCTTCGTGAT
UDP0014	GTGCCGCTTC	GAAGCGGCAC	CGGCTCTACT	CGGCTCTACT	AGTAGAGCCG
UDP0015	CGGCAATGGA	TCCATTGCCG	GAATGCACGA	GAATGCACGA	TCGTGCATTC
UDP0016	GCCGTAACCG	CGGTTACGGC	AAGACTATAG	AAGACTATAG	CTATAGTCTT
UDP0017	AACCATTCTC	GAGAATGGTT	TCGGCAGCAA	TCGGCAGCAA	TTGCTGCCGA
UDP0018	GGTTGCCTCT	AGAGGCAACC	CTAATGATGG	CTAATGATGG	CCATCATTAG
UDP0019	CTAATGATGG	CCATCATTAG	GGTTGCCTCT	GGTTGCCTCT	AGAGGCAACC
UDP0020	TCGGCCTATC	GATAGGCCGA	CGCACATGGC	CGCACATGGC	GCCATGTGCG
UDP0021	AGTCAACCAT	ATGGTTGACT	GGCCTGTCCT	GGCCTGTCCT	AGGACAGGCC
UDP0022	GAGCGCAATA	TATTGCGCTC	CTGTGTTAGG	CTGTGTTAGG	CCTAACACAG
UDP0023	AACAAGGCGT	ACGCCTTGTT	TAAGGAACGT	TAAGGAACGT	ACGTTCCTTA
UDP0024	GTATGTAGAA	TTCTACATAC	CTAACTGTAA	CTAACTGTAA	TTACAGTTAG
UDP0025	TTCTATGGTT	AACCATAGAA	GGCGAGATGG	GGCGAGATGG	CCATCTCGCC
UDP0026	CCTCGCAACC	GGTTGCGAGG	AATAGAGCAA	AATAGAGCAA	TTGCTCTATT
UDP0027	TGGATGCTTA	TAAGCATCCA	TCAATCCATT	TCAATCCATT	AATGGATTGA

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0028	ATGTCGTGGT	ACCACGACAT	TCGTATGCGG	TCGTATGCGG	CCGCATACGA
UDP0029	AGAGTGCGGC	GCCGCACTCT	TCCGACCTCG	TCCGACCTCG	CGAGGTCGGA
UDP0030	TGCCTGGTGG	CCACCAGGCA	CTTATGGAAT	CTTATGGAAT	ATTCCATAAG
UDP0031	TGCGTGTCAC	GTGACACGCA	GCTTACGGAC	GCTTACGGAC	GTCCGTAAGC
UDP0032	CATACACTGT	ACAGTGTATG	GAACATACGG	GAACATACGG	CCGTATGTTC
UDP0033	CGTATAATCA	TGATTATACG	GTCGATTACA	GTCGATTACA	TGTAATCGAC
UDP0034	TACGCGGCTG	CAGCCGCGTA	ACTAGCCGTG	ACTAGCCGTG	CACGGCTAGT
UDP0035	GCGAGTTACC	GGTAACTCGC	AAGTTGGTGA	AAGTTGGTGA	TCACCAACTT
UDP0036	TACGGCCGGT	ACCGGCCGTA	TGGCAATATT	TGGCAATATT	AATATTGCCA
UDP0037	GTCGATTACA	TGTAATCGAC	GATCACCGCG	GATCACCGCG	CGCGGTGATC
UDP0038	CTGTCTGCAC	GTGCAGACAG	TACCATCCGT	TACCATCCGT	ACGGATGGTA
UDP0039	CAGCCGATTG	CAATCGGCTG	GCTGTAGGAA	GCTGTAGGAA	TTCCTACAGC
UDP0040	TGACTACATA	TATGTAGTCA	CGCACTAATG	CGCACTAATG	CATTAGTGCG
UDP0041	ATTGCCGAGT	ACTCGGCAAT	GACAACTGAA	GACAACTGAA	TTCAGTTGTC
UDP0042	GCCATTAGAC	GTCTAATGGC	AGTGGTCAGG	AGTGGTCAGG	CCTGACCACT
UDP0043	GGCGAGATGG	CCATCTCGCC	TTCTATGGTT	TTCTATGGTT	AACCATAGAA
UDP0044	TGGCTCGCAG	CTGCGAGCCA	AATCCGGCCA	AATCCGGCCA	TGGCCGGATT
UDP0045	TAGAATAACG	CGTTATTCTA	CCATAAGGTT	CCATAAGGTT	AACCTTATGG
UDP0046	TAATGGATCT	AGATCCATTA	ATCTCTACCA	ATCTCTACCA	TGGTAGAGAT
UDP0047	TATCCAGGAC	GTCCTGGATA	CGGTGGCGAA	CGGTGGCGAA	TTCGCCACCG
UDP0048	AGTGCCACTG	CAGTGGCACT	TAACAATAGG	TAACAATAGG	CCTATTGTTA
UDP0049	GTGCAACACT	AGTGTTGCAC	CTGGTACACG	CTGGTACACG	CGTGTACCAG
UDP0050	ACATGGTGTC	GACACCATGT	TCAACGTGTA	TCAACGTGTA	TACACGTTGA
UDP0051	GACAGACAGG	CCTGTCTGTC	ACTGTTGTGA	ACTGTTGTGA	TCACAACAGT
UDP0052	TCTTACATCA	TGATGTAAGA	GTGCGTCCTT	GTGCGTCCTT	AAGGACGCAC
UDP0053	TTACAATTCC	GGAATTGTAA	AGCACATCCT	AGCACATCCT	AGGATGTGCT
UDP0054	AAGCTTATGC	GCATAAGCTT	TTCCGTCGCA	TTCCGTCGCA	TGCGACGGAA

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0055	TATTCCTCAG	CTGAGGAATA	CTTAACCACT	CTTAACCACT	AGTGGTTAAG
UDP0056	CTCGTGCGTT	AACGCACGAG	GCCTCGGATA	GCCTCGGATA	TATCCGAGGC
UDP0057	TTAGGATAGA	TCTATCCTAA	CGTCGACTGG	CGTCGACTGG	CCAGTCGACG
UDP0058	CCGAAGCGAG	CTCGCTTCGG	TACTAGTCAA	TACTAGTCAA	TTGACTAGTA
UDP0059	GGACCAACAG	CTGTTGGTCC	ATAGACCGTT	ATAGACCGTT	AACGGTCTAT
UDP0060	TTCCAGGTAA	TTACCTGGAA	ACAGTTCCAG	ACAGTTCCAG	CTGGAACTGT
UDP0061	TGATTAGCCA	TGGCTAATCA	AGGCATGTAG	AGGCATGTAG	CTACATGCCT
UDP0062	TAACAGTGTT	AACACTGTTA	GCAAGTCTCA	GCAAGTCTCA	TGAGACTTGC
UDP0063	ACCGCGCAAT	ATTGCGCGGT	TTGGCTCCGC	TTGGCTCCGC	GCGGAGCCAA
UDP0064	GTTCGCGCCA	TGGCGCGAAC	AACTGATACT	AACTGATACT	AGTATCAGTT
UDP0065	AGACACATTA	TAATGTGTCT	GTAAGGCATA	GTAAGGCATA	TATGCCTTAC
UDP0066	GCGTTGGTAT	ATACCAACGC	AATTGCTGCG	AATTGCTGCG	CGCAGCAATT
UDP0067	AGCACATCCT	AGGATGTGCT	TTACAATTCC	TTACAATTCC	GGAATTGTAA
UDP0068	TTGTTCCGTG	CACGGAACAA	AACCTAGCAC	AACCTAGCAC	GTGCTAGGTT
UDP0069	AAGTACTCCA	TGGAGTACTT	TCTGTGTGGA	TCTGTGTGGA	TCCACACAGA
UDP0070	ACGTCAATAC	GTATTGACGT	GGAATTCCAA	GGAATTCCAA	TTGGAATTCC
UDP0071	GGTGTACAAG	CTTGTACACC	AAGCGCGCTT	AAGCGCGCTT	AAGCGCGCTT
UDP0072	CCACCTGTGT	ACACAGGTGG	TGAGCGTTGT	TGAGCGTTGT	ACAACGCTCA
UDP0073	GTTCCGCAGG	CCTGCGGAAC	ATCATAGGCT	ATCATAGGCT	AGCCTATGAT
UDP0074	ACCTTATGAA	TTCATAAGGT	TGTTAGAAGG	TGTTAGAAGG	CCTTCTAACA
UDP0075	CGCTGCAGAG	CTCTGCAGCG	GATGGATGTA	GATGGATGTA	TACATCCATC
UDP0076	GTAGAGTCAG	CTGACTCTAC	ACGGCCGTCA	ACGGCCGTCA	TGACGGCCGT
UDP0077	GGATACCAGA	TCTGGTATCC	CGTTGCTTAC	CGTTGCTTAC	GTAAGCAACG
UDP0078	CGCACTAATG	CATTAGTGCG	TGACTACATA	TGACTACATA	TATGTAGTCA
UDP0079	TCCTGACCGT	ACGGTCAGGA	CGGCCTCGTT	CGGCCTCGTT	AACGAGGCCG
UDP0080	CTGGCTTGCC	GGCAAGCCAG	CAAGCATCCG	CAAGCATCCG	CGGATGCTTG
UDP0081	ACCAGCGACA	TGTCGCTGGT	TCGTCTGACT	TCGTCTGACT	AGTCAGACGA

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0082	TTGTAACGGT	ACCGTTACAA	CTCATAGCGA	CTCATAGCGA	TCGCTATGAG
UDP0083	GTAAGGCATA	TATGCCTTAC	AGACACATTA	AGACACATTA	TAATGTGTCT
UDP0084	GTCCACTTGT	ACAAGTGGAC	GCGCGATGTT	GCGCGATGTT	AACATCGCGC
UDP0085	TTAGGTACCA	TGGTACCTAA	CATGAGTACT	CATGAGTACT	AGTACTCATG
UDP0086	GGAATTCCAA	TTGGAATTCC	ACGTCAATAC	ACGTCAATAC	GTATTGACGT
UDP0087	CATGTAGAGG	CCTCTACATG	GATACCTCCT	GATACCTCCT	AGGAGGTATC
UDP0088	TACACGCTCC	GGAGCGTGTA	ATCCGTAAGT	ATCCGTAAGT	ACTTACGGAT
UDP0089	GCTTACGGAC	GTCCGTAAGC	CGTGTATCTT	CGTGTATCTT	AAGATACACG
UDP0090	CGCTTGAAGT	ACTTCAAGCG	GAACCATGAA	GAACCATGAA	TTCATGGTTC
UDP0091	CGCCTTCTGA	TCAGAAGGCG	GGCCATCATA	GGCCATCATA	TATGATGGCC
UDP0092	ATACCAACGC	GCGTTGGTAT	ACATACTTCC	ACATACTTCC	GGAAGTATGT
UDP0093	CTGGATATGT	ACATATCCAG	TATGTGCAAT	TATGTGCAAT	ATTGCACATA
UDP0094	CAATCTATGA	TCATAGATTG	GATTAAGGTG	GATTAAGGTG	CACCTTAATC
UDP0095	GGTGGAATAC	GTATTCCACC	ATGTAGACAA	ATGTAGACAA	TTGTCTACAT
UDP0096	TGGACGGAGG	CCTCCGTCCA	CACATCGGTG	CACATCGGTG	CACCGATGTG

Plate B/Set 2 Index Adapters

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0097	CTGACCGGCA	TGCCGGTCAG	CCTGATACAA	CCTGATACAA	TTGTATCAGG
UDP0098	GAATTGAGTG	CACTCAATTC	TTAAGTTGTG	TTAAGTTGTG	CACAACTTAA
UDP0099	GCGTGTGAGA	TCTCACACGC	CGGACAGTGA	CGGACAGTGA	TCACTGTCCG
UDP0100	TCTCCATTGA	TCAATGGAGA	GCACTACAAC	GCACTACAAC	GTTGTAGTGC

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0101	ACATGCATAT	ATATGCATGT	TGGTGCCTGG	TGGTGCCTGG	CCAGGCACCA
UDP0102	CAGGCGCCAT	ATGGCGCCTG	TCCACGGCCT	TCCACGGCCT	AGGCCGTGGA
UDP0103	ACATAACGGA	TCCGTTATGT	TTGTAGTGTA	TTGTAGTGTA	TACACTACAA
UDP0104	TTAATAGACC	GGTCTATTAA	CCACGACACG	CCACGACACG	CGTGTCGTGG
UDP0105	ACGATTGCTG	CAGCAATCGT	TGTGATGTAT	TGTGATGTAT	ATACATCACA
UDP0106	TTCTACAGAA	TTCTGTAGAA	GAGCGCAATA	GAGCGCAATA	TATTGCGCTC
UDP0107	TATTGCGTTC	GAACGCAATA	ATCTTACTGT	ATCTTACTGT	ACAGTAAGAT
UDP0108	CATGAGTACT	AGTACTCATG	ATGTCGTGGT	ATGTCGTGGT	ACCACGACAT
UDP0109	TAATTCTACC	GGTAGAATTA	GTAGCCATCA	GTAGCCATCA	TGATGGCTAC
UDP0110	ACGCTAATTA	TAATTAGCGT	TGGTTAAGAA	TGGTTAAGAA	TTCTTAACCA
UDP0111	CCTTGTTAAT	ATTAACAAGG	TGTTGTTCGT	TGTTGTTCGT	ACGAACAACA
UDP0112	GTAGCCATCA	TGATGGCTAC	CCAACAACAT	CCAACAACAT	ATGTTGTTGG
UDP0113	CTTGTAATTC	GAATTACAAG	ACCGGCTCAG	ACCGGCTCAG	CTGAGCCGGT
UDP0114	TCCAATTCTA	TAGAATTGGA	GTTAATCTGA	GTTAATCTGA	TCAGATTAAC
UDP0115	AGAGCTGCCT	AGGCAGCTCT	CGGCTAACGT	CGGCTAACGT	ACGTTAGCCG
UDP0116	CTTCGCCGAT	ATCGGCGAAG	TCCAAGAATT	TCCAAGAATT	AATTCTTGGA
UDP0117	TCGGTCACGG	CCGTGACCGA	CCGAACGTTG	CCGAACGTTG	CAACGTTCGG
UDP0118	GAACAAGTAT	ATACTTGTTC	TAACCGCCGA	TAACCGCCGA	TCGGCGGTTA
UDP0119	AATTGGCGGA	TCCGCCAATT	CTCCGTGCTG	CTCCGTGCTG	CAGCACGGAG
UDP0120	GGCCTGTCCT	AGGACAGGCC	CATTCCAGCT	CATTCCAGCT	AGCTGGAATG
UDP0121	TAGGTTCTCT	AGAGAACCTA	GGTTATGCTA	GGTTATGCTA	TAGCATAACC
UDP0122	ACACAATATC	GATATTGTGT	ACCACACGGT	ACCACACGGT	ACCGTGTGGT
UDP0123	TTCCTGTACG	CGTACAGGAA	TAGGTTCTCT	TAGGTTCTCT	AGAGAACCTA
UDP0124	GGTAACGCAG	CTGCGTTACC	TATGGCTCGA	TATGGCTCGA	TCGAGCCATA
UDP0125	TCCACGGCCT	AGGCCGTGGA	CTCGTGCGTT	CTCGTGCGTT	AACGCACGAG
UDP0126	GATACCTCCT	AGGAGGTATC	CCAGTTGGCA	CCAGTTGGCA	TGCCAACTGG
UDP0127	CAACGTCAGC	GCTGACGTTG	TGTTCGCATT	TGTTCGCATT	AATGCGAACA

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0128	CGGTTATTAG	CTAATAACCG	AACCGCATCG	AACCGCATCG	CGATGCGGTT
UDP0129	CGCGCCTAGA	TCTAGGCGCG	CGAAGGTTAA	CGAAGGTTAA	TTAACCTTCG
UDP0130	TCTTGGCTAT	ATAGCCAAGA	AGTGCCACTG	AGTGCCACTG	CAGTGGCACT
UDP0131	TCACACCGAA	TTCGGTGTGA	GAACAAGTAT	GAACAAGTAT	ATACTTGTTC
UDP0132	AACGTTACAT	ATGTAACGTT	ACGATTGCTG	ACGATTGCTG	CAGCAATCGT
UDP0133	CGGCCTCGTT	AACGAGGCCG	ATACCTGGAT	ATACCTGGAT	ATCCAGGTAT
UDP0134	CATAACACCA	TGGTGTTATG	TCCAATTCTA	TCCAATTCTA	TAGAATTGGA
UDP0135	ACAGAGGCCA	TGGCCTCTGT	TGAGACAGCG	TGAGACAGCG	CGCTGTCTCA
UDP0136	TGGTGCCTGG	CCAGGCACCA	ACGCTAATTA	ACGCTAATTA	TAATTAGCGT
UDP0137	TAGGAACCGG	CCGGTTCCTA	TATATTCGAG	TATATTCGAG	CTCGAATATA
UDP0138	AATATTGGCC	GGCCAATATT	CGGTCCGATA	CGGTCCGATA	TATCGGACCG
UDP0139	ATAGGTATTC	GAATACCTAT	ACAATAGAGT	ACAATAGAGT	ACTCTATTGT
UDP0140	CCTTCACGTA	TACGTGAAGG	CGGTTATTAG	CGGTTATTAG	CTAATAACCG
UDP0141	GGCCAATAAG	CTTATTGGCC	GATAACAAGT	GATAACAAGT	ACTTGTTATC
UDP0142	CAGTAGTTGT	ACAACTACTG	AGTTATCACA	AGTTATCACA	TGTGATAACT
UDP0143	TTCATCCAAC	GTTGGATGAA	TTCCAGGTAA	TTCCAGGTAA	TTACCTGGAA
UDP0144	CAATTGGATT	AATCCAATTG	CATGTAGAGG	CATGTAGAGG	CCTCTACATG
UDP0145	GGCCATCATA	TATGATGGCC	GATTGTCATA	GATTGTCATA	TATGACAATC
UDP0146	AATTGCTGCG	CGCAGCAATT	ATTCCGCTAT	ATTCCGCTAT	ATAGCGGAAT
UDP0147	TAAGGAACGT	ACGTTCCTTA	GACCGCTGTG	GACCGCTGTG	CACAGCGGTC
UDP0148	CTATACGCGG	CCGCGTATAG	TAGGAACCGG	TAGGAACCGG	CCGGTTCCTA
UDP0149	ATTCAGAATC	GATTCTGAAT	AGCGGTGGAC	AGCGGTGGAC	GTCCACCGCT
UDP0150	GTATTCTCTA	TAGAGAATAC	TATAGATTCG	TATAGATTCG	CGAATCTATA
UDP0151	CCTGATACAA	TTGTATCAGG	ACAGAGGCCA	ACAGAGGCCA	TGGCCTCTGT
UDP0152	GACCGCTGTG	CACAGCGGTC	ATTCCTATTG	ATTCCTATTG	CAATAGGAAT
UDP0153	TTCAGCGTGG	CCACGCTGAA	TATTCCTCAG	TATTCCTCAG	CTGAGGAATA
UDP0154	AACTCCGAAC	GTTCGGAGTT	CGCCTTCTGA	CGCCTTCTGA	TCAGAAGGCG

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0155	ATTCCGCTAT	ATAGCGGAAT	GCGCAGAGTA	GCGCAGAGTA	TACTCTGCGC
UDP0156	TGAATATTGC	GCAATATTCA	GGCGCCAATT	GGCGCCAATT	AATTGGCGCC
UDP0157	CGCAATCTAG	CTAGATTGCG	AGATATGGCG	AGATATGGCG	CGCCATATCT
UDP0158	AACCGCATCG	CGATGCGGTT	CCTGCTTGGT	CCTGCTTGGT	ACCAAGCAGG
UDP0159	CTAGTCCGGA	TCCGGACTAG	GACGAACAAT	GACGAACAAT	ATTGTTCGTC
UDP0160	GCTCCGTCAC	GTGACGGAGC	TGGCGGTCCA	TGGCGGTCCA	TGGACCGCCA
UDP0161	AGATGGAATT	AATTCCATCT	CTTCAGTTAC	CTTCAGTTAC	GTAACTGAAG
UDP0162	ACACCGTTAA	TTAACGGTGT	TCCTGACCGT	TCCTGACCGT	ACGGTCAGGA
UDP0163	GATAACAAGT	ACTTGTTATC	CGCGCCTAGA	CGCGCCTAGA	TCTAGGCGCG
UDP0164	CTGGTACACG	CGTGTACCAG	AGGATAAGTT	AGGATAAGTT	AACTTATCCT
UDP0165	CGAAGGTTAA	TTAACCTTCG	AGGCCAGACA	AGGCCAGACA	TGTCTGGCCT
UDP0166	ATCGCATATG	CATATGCGAT	CCTTGAACGG	CCTTGAACGG	CCGTTCAAGG
UDP0167	ATCATAGGCT	AGCCTATGAT	CACCACCTAC	CACCACCTAC	GTAGGTGGTG
UDP0168	GATTGTCATA	TATGACAATC	TTGCTTGTAT	TTGCTTGTAT	ATACAAGCAA
UDP0169	CCAACAACAT	ATGTTGTTGG	CAATCTATGA	CAATCTATGA	TCATAGATTG
UDP0170	TTGGTGGTGC	GCACCACCAA	TGGTACTGAT	TGGTACTGAT	ATCAGTACCA
UDP0171	GCGAACGCCT	AGGCGTTCGC	TTCATCCAAC	TTCATCCAAC	GTTGGATGAA
UDP0172	CAACCGGAGG	CCTCCGGTTG	CATAACACCA	CATAACACCA	TGGTGTTATG
UDP0173	AGCGGTGGAC	GTCCACCGCT	TCCTATTAGC	TCCTATTAGC	GCTAATAGGA
UDP0174	GACGAACAAT	ATTGTTCGTC	TCTCTAGATT	TCTCTAGATT	AATCTAGAGA
UDP0175	CCACTGGTCC	GGACCAGTGG	CGCGAGCCTA	CGCGAGCCTA	TAGGCTCGCG
UDP0176	TGTTAGAAGG	CCTTCTAACA	GATAAGCTCT	GATAAGCTCT	AGAGCTTATC
UDP0177	TATATTCGAG	CTCGAATATA	GAGATGTCGA	GAGATGTCGA	TCGACATCTC
UDP0178	CGCGACGATC	GATCGTCGCG	CTGGATATGT	CTGGATATGT	ACATATCCAG
UDP0179	GCCTCGGATA	TATCCGAGGC	GGCCAATAAG	GGCCAATAAG	CTTATTGGCC
UDP0180	TGAGACAGCG	CGCTGTCTCA	ATTACTCACC	ATTACTCACC	GGTGAGTAAT
UDP0181	TGTTCGCATT	AATGCGAACA	AATTGGCGGA	AATTGGCGGA	TCCGCCAATT

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0182	TCCAAGAATT	AATTCTTGGA	TTGTCAACTT	TTGTCAACTT	AAGTTGACAA
UDP0183	GCTGTAGGAA	TTCCTACAGC	GGCGAATTCT	GGCGAATTCT	AGAATTCGCC
UDP0184	ATACCTGGAT	ATCCAGGTAT	CAACGTCAGC	CAACGTCAGC	GCTGACGTTG
UDP0185	GTTGGACCGT	ACGGTCCAAC	TCTTACATCA	TCTTACATCA	TGATGTAAGA
UDP0186	ACCAAGTTAC	GTAACTTGGT	CGCCATACCT	CGCCATACCT	AGGTATGGCG
UDP0187	GTGTGGCGCT	AGCGCCACAC	CTAATGTCTT	CTAATGTCTT	AAGACATTAG
UDP0188	GGCAGTAGCA	TGCTACTGCC	CAACCGGAGG	CAACCGGAGG	CCTCCGGTTG
UDP0189	TGCGGTGTTG	CAACACCGCA	GGCAGTAGCA	GGCAGTAGCA	TGCTACTGCC
UDP0190	GATTAAGGTG	CACCTTAATC	TTAGGATAGA	TTAGGATAGA	TCTATCCTAA
UDP0191	CAACATTCAA	TTGAATGTTG	CGCAATCTAG	CGCAATCTAG	CTAGATTGCG
UDP0192	GTGTTACCGG	CCGGTAACAC	GAGTTGTACT	GAGTTGTACT	AGTACAACTC

Plate C/Set 3 Index Adapters

IDT for Illumina DNA/RNA and PCR UD Indexes are identical to IDT for Illumina Nextera DNA UD Indexes except where a V2 is indicated.

The V2 indication applies only to IDT for Illumina DNA/RNA and PCR UD Indexes. IDT for Illumina Nextera DNA UD Indexes do not include V2 indexes.

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0193	TATCATGAGA	TCTCATGATA	AACACGTGGA	AACACGTGGA	TCCACGTGTT
UDP0194	CTTGGCCTCG	CGAGGCCAAG	GTGTTACCGG	GTGTTACCGG	CCGGTAACAC
UDP0195	GTCTCGTGAA	TTCACGAGAC	AGATTGTTAC	AGATTGTTAC	GTAACAATCT
UDP0196	CCATCCACGC	GCGTGGATGG	TTGACCAATG	TTGACCAATG	CATTGGTCAA

Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0197	ACAACCAGGA	TCCTGGTTGT	CTGACCGGCA	CTGACCGGCA	TGCCGGTCAG
UDP0198	AGCAGAATTA	TAATTCTGCT	TCTCATCAAT	TCTCATCAAT	ATTGATGAGA
UDP0199	CAGTCGTGCG	CGCACGACTG	GGACCAACAG	GGACCAACAG	CTGTTGGTCC
UDP0200	GTCTAACCTC	GAGGTTAGAC	AATGTATTGC	AATGTATTGC	GCAATACATT
UDP0201	GAACTCGGTT	AACCGAGTTC	GATCTCTGGA	GATCTCTGGA	TCCAGAGATC
UDP0202	AGTTATCACA	TGTGATAACT	CAGGCGCCAT	CAGGCGCCAT	ATGGCGCCTG
UDP0203	GTAGCATACT	AGTATGCTAC	TTAATAGACC	TTAATAGACC	GGTCTATTAA
UDP0204	CTTCAGTTAC	GTAACTGAAG	GGAGTCGCGA	GGAGTCGCGA	TCGCGACTCC
UDP0205	AGTCCGAGGA	TCCTCGGACT	AACGCCAGAG	AACGCCAGAG	CTCTGGCGTT
UDP0206	ACAGTTCCAG	CTGGAACTGT	CGTAATTAAC	CGTAATTAAC	GTTAATTACG
UDP0207	CCGCATATTC	GAATATGCGG	ACGAGACTGA	ACGAGACTGA	TCAGTCTCGT
UDP0208	TTATCCGATC	GATCGGATAA	GTATCGGCCG	GTATCGGCCG	CGGCCGATAC
UDP0209	ATAGTCTAGC	GCTAGACTAT	AATACGACAT	AATACGACAT	ATGTCGTATT
UDP0210	TATAGTAGCT	AGCTACTATA	GTTATATGGC	GTTATATGGC	GCCATATAAC
UDP0211	ACTCCGGTGG	CCACCGGAGT	GCCTGCCATG	GCCTGCCATG	CATGGCAGGC
UDP0212	GTGCGGTAAG	CTTACCGCAC	TAAGACCTAT	TAAGACCTAT	ATAGGTCTTA
UDP0213	GATATCCTAA	TTAGGATATC	TATACCATGG	TATACCATGG	CCATGGTATA
UDP0214	TCGCGTATAA	TTATACGCGA	GCCGTCTGTT	GCCGTCTGTT	AACAGACGGC
UDP0215	ATTCTAAGCG	CGCTTAGAAT	CAGAGTGATA	CAGAGTGATA	TATCACTCTG
UDP0216	AGCGCTTCGG	CCGAAGCGCT	TGCTAACTAT	TGCTAACTAT	ATAGTTAGCA
UDP0217	GTTGATAGTG	CACTATCAAC	TCAGTTAATG	TCAGTTAATG	CATTAACTGA
UDP0218	AATAGAGCAA	TTGCTCTATT	GTGACCTTGA	GTGACCTTGA	TCAAGGTCAC
UDP0219	CTAACTGTAA	TTACAGTTAG	ACATGCATAT	ACATGCATAT	ATATGCATGT
UDP0220	GCGTACTTAG	CTAAGTACGC	AACATACCTA	AACATACCTA	TAGGTATGTT
UDP0221	TACCGAACTA	TAGTTCGGTA	CCATGTGTAG	CCATGTGTAG	CTACACATGG
UDP0222	GTAGTAATAG	CTATTACTAC	GAGTCTCTCC	GAGTCTCTCC	GGAGAGACTC
UDP0223	GGTTATGCTA	TAGCATAACC	GCTATGCGCA	GCTATGCGCA	TGCGCATAGC

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0224	ACAATAGAGT	ACTCTATTGT	ATCGCATATG	ATCGCATATG	CATATGCGAT
UDP0225	GCTTCCACTA	TAGTGGAAGC	AGTACCTATA	AGTACCTATA	TATAGGTACT
UDP0226	AGATATGGCG	CGCCATATCT	GACCGGAGAT	GACCGGAGAT	ATCTCCGGTC
UDP0227	AATATGAAGC	GCTTCATATT	CGTTCAGCCT	CGTTCAGCCT	AGGCTGAACG
UDP0228	TAGCGCTAGT	ACTAGCGCTA	TTACTTCCTC	TTACTTCCTC	GAGGAAGTAA
UDP0229	AGTTAAGAGC	GCTCTTAACT	CACGTCCACC	CACGTCCACC	GGTGGACGTG
UDP0230	CAGATACCAC	GTGGTATCTG	GCTACTATCT	GCTACTATCT	AGATAGTAGC
UDP0231	ACGGCCGTCA	TGACGGCCGT	AGTCAACCAT	AGTCAACCAT	ATGGTTGACT
UDP0232	GTAATTACTG	CAGTAATTAC	CGAGGCGGTA	CGAGGCGGTA	TACCGCCTCG
UDP0233	AAGTCTTGTA	TACAAGACTT	CAGGTGTTCA	CAGGTGTTCA	TGAACACCTG
UDP0234	GTCACCACAG	CTGTGGTGAC	GACAGACAGG	GACAGACAGG	CCTGTCTGTC
UDP0235	ATTAGTGGAG	CTCCACTAAT	TGTACTTGTT	TGTACTTGTT	AACAAGTACA
UDP0236	TGCTAACTAT	ATAGTTAGCA	CTCTAAGTAG	CTCTAAGTAG	CTACTTAGAG
UDP0237	TAAGACCTAT	ATAGGTCTTA	GTCACCACAG	GTCACCACAG	CTGTGGTGAC
UDP0238	TGGTTAAGAA	TTCTTAACCA	TCTACATACC	TCTACATACC	GGTATGTAGA
UDP0239	ACTCTTCCTT	AAGGAAGAGT	CACGTTAGGC	CACGTTAGGC	GCCTAACGTG
UDP0240	GTCTCCTTCC	GGAAGGAGAC	TGGTGAGTCT	TGGTGAGTCT	AGACTCACCA
UDP0241	TCCGCGTTCA	TGAACGCGGA	CTTCGAAGGA	CTTCGAAGGA	TCCTTCGAAG
UDP0242	AGGTTGCAGG	CCTGCAACCT	GTAGAGTCAG	GTAGAGTCAG	CTGACTCTAC
UDP0243	GAACCATGAA	TTCATGGTTC	GACATTGTCA	GACATTGTCA	TGACAATGTC
UDP0244	TTGAGAGGAT	ATCCTCTCAA	TCCGCAAGGC	TCCGCAAGGC	GCCTTGCGGA
UDP0245	TGGTCTAGTG	CACTAGACCA	ACTGCCTTAT	ACTGCCTTAT	ATAAGGCAGT
UDP0246	AGTGGATAAT	ATTATCCACT	TACGCACGTA	TACGCACGTA	TACGTGCGTA
UDP0247	GGCACGCCAT	ATGGCGTGCC	CGCTTGAAGT	CGCTTGAAGT	ACTTCAAGCG
UDP0248	GATCTCTGGA	TCCAGAGATC	CTGCACTTCA	CTGCACTTCA	TGAAGTGCAG
UDP0249	TGCTGGACAT	ATGTCCAGCA	CAGCGGACAA	CAGCGGACAA	TTGTCCGCTG
UDP0250	CCGAACGTTG	CAACGTTCGG	GGATCCGCAT	GGATCCGCAT	ATGCGGATCC

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0251	ATTAATACGC	GCGTATTAAT	TGCGGTGTTG	TGCGGTGTTG	CAACACCGCA
UDP0252V2	CCAGATTCGG	CCGAATCTGG	ATGAATCAAG	ATGAATCAAG	CTTGATTCAT
UDP0252	TAGTCACAAC	GTTGTGACTA	ACATAACGGA	ACATAACGGA	TCCGTTATGT
UDP0253	GGTATTGAGA	TCTCAATACC	GACGTTCGCG	GACGTTCGCG	CGCGAACGTC
UDP0254	CAAGATGCTT	AAGCATCTTG	CATTCAACAA	CATTCAACAA	TTGTTGAATG
UDP0255	ACGAGACTGA	TCAGTCTCGT	CACGGATTAT	CACGGATTAT	ATAATCCGTG
UDP0256	TTATCTTGCA	TGCAAGATAA	TTGAGGACGG	TTGAGGACGG	CCGTCCTCAA
UDP0257	AGATTGTTAC	GTAACAATCT	CTCTGTATAC	CTCTGTATAC	GTATACAGAG
UDP0258V2	TATACCATGG	CCATGGTATA	TCTCGCGGAG	TCTCGCGGAG	CTCCGCGAGA
UDP0258	TCTACCGCTG	CAGCGGTAGA	GCAACAGGTG	GCAACAGGTG	CACCTGTTGC
UDP0259	AACGGTATGA	TCATACCGTT	GGTAACGCAG	GGTAACGCAG	CTGCGTTACC
UDP0260	CAATGGCGCC	GGCGCCATTG	ACCGCGCAAT	ACCGCGCAAT	ATTGCGCGGT
UDP0261	CTAATTCGCT	AGCGAATTAG	AGCCGGAACA	AGCCGGAACA	TGTTCCGGCT
UDP0262	CATGGTCTAA	TTAGACCATG	TCCTAGGAAG	TCCTAGGAAG	CTTCCTAGGA
UDP0263	ATACTGTGTG	CACACAGTAT	TTGAGCCTAA	TTGAGCCTAA	TTAGGCTCAA
UDP0264	GCCGACAAGA	TCTTGTCGGC	CCACCTGTGT	CCACCTGTGT	ACACAGGTGG
UDP0265	CGAGGCGGTA	TACCGCCTCG	CCTCGCAACC	CCTCGCAACC	GGTTGCGAGG
UDP0266	GATATAACAG	CTGTTATATC	GTATAGCTGT	GTATAGCTGT	ACAGCTATAC
UDP0267	TCGCCGGTTA	TAACCGGCGA	GCTACATTAG	GCTACATTAG	CTAATGTAGC
UDP0268	AGACTCTCTT	AAGAGAGTCT	TACGAATCTT	TACGAATCTT	AAGATTCGTA
UDP0269	GCTCGCCTAC	GTAGGCGAGC	TAGGAGCGCA	TAGGAGCGCA	TGCGCTCCTA
UDP0270	AGGATAAGTT	AACTTATCCT	GTACTGGCGT	GTACTGGCGT	ACGCCAGTAC
UDP0271	GAGACATAAT	ATTATGTCTC	AGTTAAGAGC	AGTTAAGAGC	GCTCTTAACT
UDP0272	AGCTGTTATA	TATAACAGCT	TCGCGTATAA	TCGCGTATAA	TTATACGCGA
UDP0273	GTATCATTGG	CCAATGATAC	GAGTGTGCCG	GAGTGTGCCG	CGGCACACTC
UDP0274	AATAGGCCTC	GAGGCCTATT	CTAGTCCGGA	CTAGTCCGGA	TCCGGACTAG
UDP0275	CCGCTTAGCT	AGCTAAGCGG	ATTAATACGC	ATTAATACGC	GCGTATTAAT

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0276	TCCTAGGAAG	CTTCCTAGGA	CCTAGAGTAT	CCTAGAGTAT	ATACTCTAGG
UDP0277	TCACAGATCG	CGATCTGTGA	TAGGAAGACT	TAGGAAGACT	AGTCTTCCTA
UDP0278	ACTTGTCCAC	GTGGACAAGT	CCGTGGCCTT	CCGTGGCCTT	AAGGCCACGG
UDP0279	TGTACTTGTT	AACAAGTACA	GGATATATCC	GGATATATCC	GGATATATCC
UDP0280	CACTTAATCT	AGATTAAGTG	CACCTCTTGG	CACCTCTTGG	CCAAGAGGTG
UDP0281	CAGAGTGATA	TATCACTCTG	AACGTTACAT	AACGTTACAT	ATGTAACGTT
UDP0282	GGCGAATTCT	AGAATTCGCC	CGGCAAGCTC	CGGCAAGCTC	GAGCTTGCCG
UDP0283	AGTGGTCAGG	CCTGACCACT	TCTTGGCTAT	TCTTGGCTAT	ATAGCCAAGA
UDP0284	CATTCCAGCT	AGCTGGAATG	ACGGAATGCG	ACGGAATGCG	CGCATTCCGT
UDP0285	CTCGTTATCA	TGATAACGAG	GTTCCGCAGG	GTTCCGCAGG	CCTGCGGAAC
UDP0286	CCTTACTATG	CATAGTAAGG	ACCAAGTTAC	ACCAAGTTAC	GTAACTTGGT
UDP0287	AGAAGCCAAT	ATTGGCTTCT	TGGCTCGCAG	TGGCTCGCAG	CTGCGAGCCA
UDP0288	TAATCGGTAC	GTACCGATTA	AACTAACGTT	AACTAACGTT	AACGTTAGTT

Plate D/Set 4 Index Adapters

IDT for Illumina DNA/RNA and PCR UD Indexes are identical to IDT for Illumina Nextera DNA UD Indexes except where a V2 is indicated.

The V2 indication applies only to IDT for Illumina DNA/RNA and PCR UD Indexes. IDT for Illumina Nextera DNA UD Indexes do not include V2 indexes.

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0289V2	GCTACTATCT	AGATAGTAGC	GGCACGCCAT	GGCACGCCAT	ATGGCGTGCC
UDP0289	GGAATTGTTC	GAACAATTCC	TAGAGTTGGA	TAGAGTTGGA	TCCAACTCTA

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0290V2	GTCTTCTAAT	ATTAGAAGAC	GCAGGCTGGA	GCAGGCTGGA	TCCAGCCTGC
UDP0290	CCGGACCACA	TGTGGTCCGG	AGAGCACTAG	AGAGCACTAG	CTAGTGCTCT
UDP0291V2	ATGTGCGAGC	GCTCGCACAT	ATGGCTTAAT	ATGGCTTAAT	ATTAAGCCAT
UDP0291	GACTTAGAAG	CTTCTAAGTC	ACTCTACAGG	ACTCTACAGG	CCTGTAGAGT
UDP0292	TGGCAATATT	AATATTGCCA	CGGTGACACC	CGGTGACACC	GGTGTCACCG
UDP0293	GAATGCACGA	TCGTGCATTC	GCGTTGGTAT	GCGTTGGTAT	ATACCAACGC
UDP0294	CGTGTATCTT	AAGATACACG	TGTGCTAACA	TGTGCTAACA	TGTTAGCACA
UDP0295	ATTCATTGCA	TGCAATGAAT	CCAGAAGTAA	CCAGAAGTAA	TTACTTCTGG
UDP0296	TCCTTCATAG	CTATGAAGGA	CTTATACCTG	CTTATACCTG	CAGGTATAAG
UDP0297	TCTAGTCTTC	GAAGACTAGA	ACTAGAACTT	ACTAGAACTT	AAGTTCTAGT
UDP0298	CTCGACTCCT	AGGAGTCGAG	TTAGGCTTAC	TTAGGCTTAC	GTAAGCCTAA
UDP0299	AGTGAGTGAA	TTCACTCACT	TATCATGAGA	TATCATGAGA	TCTCATGATA
UDP0300	GAAGCGGACC	GGTCCGCTTC	CTCACACAAG	CTCACACAAG	CTTGTGTGAG
UDP0301V2	CAAGCCACTA	TAGTGGCTTG	AGTTACTTGG	AGTTACTTGG	CCAAGTAACT
UDP0301	GCTCTCGTTG	CAACGAGAGC	GAATTGAGTG	GAATTGAGTG	CACTCAATTC
UDP0302	GGACCTCAAT	ATTGAGGTCC	CGGATTATAT	CGGATTATAT	ATATAATCCG
UDP0303	GAGTCTCTCC	GGAGAGACTC	TTGAAGCAGA	TTGAAGCAGA	TCTGCTTCAA
UDP0304	AACGGAGCGG	CCGCTCCGTT	TACGGCGAAG	TACGGCGAAG	CTTCGCCGTA
UDP0305	TGTGATGTAT	ATACATCACA	TCTCCATTGA	TCTCCATTGA	TCAATGGAGA
UDP0306	AACATACCTA	TAGGTATGTT	CGAGACCAAG	CGAGACCAAG	CTTGGTCTCG
UDP0307	GTGCTAGGTG	CACCTAGCAC	TGCTGGACAT	TGCTGGACAT	ATGTCCAGCA
UDP0308	CATACTTGAA	TTCAAGTATG	GATGGTATCG	GATGGTATCG	CGATACCATC
UDP0309	CTTGTCTTAA	TTAAGACAAG	GGCTTAATTG	GGCTTAATTG	CAATTAAGCC
UDP0310	AAGAGAGGTG	CACCTCTCTT	CTCGACTCCT	CTCGACTCCT	AGGAGTCGAG
UDP0311	TGCACGAGAA	TTCTCGTGCA	ATACACAGAG	ATACACAGAG	CTCTGTGTAT
UDP0312	ACTTCCTAGC	GCTAGGAAGT	TCTCGGACGA	TCTCGGACGA	TCGTCCGAGA
UDP0313	GTGCTATTAA	TTAATAGCAC	ACCACGTCTG	ACCACGTCTG	CAGACGTGGT

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0314	AGCGTGAATG	CATTCACGCT	GTTGTACTCA	GTTGTACTCA	TGAGTACAAC
UDP0315	CCTTAGTGCC	GGCACTAAGG	TCAGGTCAAC	TCAGGTCAAC	GTTGACCTGA
UDP0316	TGTACCGAAT	ATTCGGTACA	AGTCCGAGGA	AGTCCGAGGA	TCCTCGGACT
UDP0317	GGAGATTAGT	ACTAATCTCC	CACTTAATCT	CACTTAATCT	AGATTAAGTG
UDP0318	TACTAACACA	TGTGTTAGTA	TACTCTGTTA	TACTCTGTTA	TAACAGAGTA
UDP0319	TAGGTCGTTG	CAACGACCTA	GCGACTCGAT	GCGACTCGAT	ATCGAGTCGC
UDP0320	ATGCCGACCG	CGGTCGGCAT	CTAGGCAAGG	CTAGGCAAGG	CCTTGCCTAG
UDP0321	CTAGCGTCGA	TCGACGCTAG	CCTCTTCGAA	CCTCTTCGAA	TTCGAAGAGG
UDP0322	TGCCTACGAG	CTCGTAGGCA	TCATCCTCTT	TCATCCTCTT	AAGAGGATGA
UDP0323	ACTAGAACTT	AAGTTCTAGT	GGTAAGATAA	GGTAAGATAA	TTATCTTACC
UDP0324	CACCTCTTGG	CCAAGAGGTG	AACGAGCCAG	AACGAGCCAG	CTGGCTCGTT
UDP0325	AAGCAGATAT	ATATCTGCTT	TAGACAATCT	TAGACAATCT	AGATTGTCTA
UDP0326	GCCAGATCCA	TGGATCTGGC	CAATGCTGAA	CAATGCTGAA	TTCAGCATTG
UDP0327	TTGGATTCAA	TTGAATCCAA	GTCACGGTGT	GTCACGGTGT	ACACCGTGAC
UDP0328	ACTAGCCGTG	CACGGCTAGT	GGTGTACAAG	GGTGTACAAG	CTTGTACACC
UDP0329	CGGCAAGCTC	GAGCTTGCCG	AGGTTGCAGG	AGGTTGCAGG	CCTGCAACCT
UDP0330	GAAGCTAGCT	AGCTAGCTTC	TAATACGGAG	TAATACGGAG	CTCCGTATTA
UDP0331	ACAAGGATTG	CAATCCTTGT	CGAAGACGCA	CGAAGACGCA	TGCGTCTTCG
UDP0332	GCAACAGGTG	CACCTGTTGC	ATTGACACAT	ATTGACACAT	ATGTGTCAAT
UDP0333	CAAGGTGACG	CGTCACCTTG	CAGCCGATTG	CAGCCGATTG	CAATCGGCTG
UDP0334	ACCAGTCATT	AATGACTGGT	TCTCACGCGT	TCTCACGCGT	ACGCGTGAGA
UDP0335	CCGGAATCAT	ATGATTCCGG	CTCTGACGTG	CTCTGACGTG	CACGTCAGAG
UDP0336	TTGAGCCTAA	TTAGGCTCAA	TCGAATGGAA	TCGAATGGAA	TTCCATTCGA
UDP0337	CCACCTTACA	TGTAAGGTGG	AAGGCCTTGG	AAGGCCTTGG	CCAAGGCCTT
UDP0338	GTTGCAGTTG	CAACTGCAAC	TGAACGCAAC	TGAACGCAAC	GTTGCGTTCA
UDP0339	TCACTCATGT	ACATGAGTGA	CCGCTTAGCT	CCGCTTAGCT	AGCTAAGCGG
UDP0340	GACTGGTTGC	GCAACCAGTC	CACCGAGGAA	CACCGAGGAA	TTCCTCGGTG

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0341	ATCGTCGCTC	GAGCGACGAT	CGTATAATCA	CGTATAATCA	TGATTATACG
UDP0342	GGTGCGTTCG	CGAACGCACC	ATGACAGAAC	ATGACAGAAC	GTTCTGTCAT
UDP0343	CGGCGTAAGA	TCTTACGCCG	ATTCATTGCA	ATTCATTGCA	TGCAATGAAT
UDP0344	GACATCAGCT	AGCTGATGTC	TCATGTCCTG	TCATGTCCTG	CAGGACATGA
UDP0345	ACTAATTCAG	CTGAATTAGT	AATTCGATCG	AATTCGATCG	CGATCGAATT
UDP0346	TTCCTCCTTA	TAAGGAGGAA	TTCCGACATT	TTCCGACATT	AATGTCGGAA
UDP0347	TGTGTAAGCT	AGCTTACACA	TGGCACGACC	TGGCACGACC	GGTCGTGCCA
UDP0348	GTGGCTGGTT	AACCAGCCAC	GCCACAGCAC	GCCACAGCAC	GTGCTGTGGC
UDP0349	TCGACTTAAG	CTTAAGTCGA	CAGTAGTTGT	CAGTAGTTGT	ACAACTACTG
UDP0350	CACGTTAGGC	GCCTAACGTG	AGCTCTCAAG	AGCTCTCAAG	CTTGAGAGCT
UDP0351	TGAAGTAAGT	ACTTACTTCA	TCTGGAATTA	TCTGGAATTA	TAATTCCAGA
UDP0352	ACGGAATGCG	CGCATTCCGT	ATTAGTGGAG	ATTAGTGGAG	CTCCACTAAT
UDP0353	GTGTGATATC	GATATCACAC	GACTATATGT	GACTATATGT	ACATATAGTC
UDP0354	ACACAGCGCT	AGCGCTGTGT	CGTTCGGAAC	CGTTCGGAAC	GTTCCGAACG
UDP0355	AGCGCGGTGA	TCACCGCGCT	TCGATACTAG	TCGATACTAG	CTAGTATCGA
UDP0356	CAAGGCTATC	GATAGCCTTG	TACCACAATG	TACCACAATG	CATTGTGGTA
UDP0357	TGCGTCCAGG	CCTGGACGCA	TGGTATACCA	TGGTATACCA	TGGTATACCA
UDP0358	AGGTGCGTAA	TTACGCACCT	GCTCTCGTTG	GCTCTCGTTG	CAACGAGAGC
UDP0359	GCAGCAACGA	TCGTTGCTGC	GTCTCGTGAA	GTCTCGTGAA	TTCACGAGAC
UDP0360	ATCCTTGTCG	CGACAAGGAT	AAGGCCACCT	AAGGCCACCT	AGGTGGCCTT
UDP0361	GAAGGTACAC	GTGTACCTTC	CTGTGAGCTA	CTGTGAGCTA	TAGCTCACAG
UDP0362	TTGGCCAGGT	ACCTGGCCAA	TCACAGATCG	TCACAGATCG	CGATCTGTGA
UDP0363	AGGCCAGACA	TGTCTGGCCT	AGAAGCCAAT	AGAAGCCAAT	ATTGGCTTCT
UDP0364	AGCATTAACT	AGTTAATGCT	ACTGCAGCCG	ACTGCAGCCG	CGGCTGCAGT
UDP0365	ATTACTCACC	GGTGAGTAAT	AACATCTAGT	AACATCTAGT	ACTAGATGTT
UDP0366	GCGCAGAGTA	TACTCTGCGC	CCTTACTATG	CCTTACTATG	CATAGTAAGG
UDP0367	CGCCATACCT	AGGTATGGCG	GTGGCGAGAC	GTGGCGAGAC	GTCTCGCCAC

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDP0368	GCAGGCTGGA	TCCAGCCTGC	GCCAGATCCA	GCCAGATCCA	TGGATCTGGC
UDP0369	GTTATATGGC	GCCATATAAC	ACACAATATC	ACACAATATC	GATATTGTGT
UDP0370	CACTCGCACT	AGTGCGAGTG	TGGAGGTAAT	TGGAGGTAAT	ATTACCTCCA
UDP0371	ACCGGCTCAG	CTGAGCCGGT	CCTTCACGTA	CCTTCACGTA	TACGTGAAGG
UDP0372	ATAGACCGTT	AACGGTCTAT	CTATACGCGG	CTATACGCGG	CCGCGTATAG
UDP0373	TGAACGCAAC	GTTGCGTTCA	GTTGCAGTTG	GTTGCAGTTG	CAACTGCAAC
UDP0374	GTGGTTGAAG	CTTCAACCAC	TTATGCGCCT	TTATGCGCCT	AGGCGCATAA
UDP0375	ACTGAATAGA	TCTATTCAGT	TCTCAGTACA	TCTCAGTACA	TGTACTGAGA
UDP0376	GGACGTCTTG	CAAGACGTCC	AGTATACGGA	AGTATACGGA	TCCGTATACT
UDP0377	GTTGTACTCA	TGAGTACAAC	ACGCTTGGAC	ACGCTTGGAC	GTCCAAGCGT
UDP0378	AGAACCGCGG	CCGCGGTTCT	GGAGTAGATT	GGAGTAGATT	AATCTACTCC
UDP0379	CAGTATCAAT	ATTGATACTG	TACACGCTCC	TACACGCTCC	GGAGCGTGTA
UDP0380	TCCATAATCC	GGATTATGGA	TCCGATAGAG	TCCGATAGAG	CTCTATCGGA
UDP0381	ATGAGAACCA	TGGTTCTCAT	CTCAAGGCCG	CTCAAGGCCG	CGGCCTTGAG
UDP0382	TCGTGGTTGA	TCAACCACGA	CAAGTTCATA	CAAGTTCATA	TATGAACTTG
UDP0383	CAAGTTCATA	TATGAACTTG	AATCCTTAGG	AATCCTTAGG	CCTAAGGATT
UDP0384	CTTAACCACT	AGTGGTTAAG	GGTGGAATAC	GGTGGAATAC	GTATTCCACC

Nextera DNA Indexes

Index 1 (i7) Adapters

The i7 index names vary by kit:

- H7xx—Nextera DNA CD Indexes (combinatorial dual)
- N7xx—Nextera XT Index Kit v2, Nextera Index Kit

i7 Index Name	Bases in Adapter	i7 Bases for Sample Sheet
[H/N]701	TCGCCTTA	TAAGGCGA
[H/N]702	CTAGTACG	CGTACTAG

i7 Index Name	Bases in Adapter	i7 Bases for Sample Sheet
[H/N]703	TTCTGCCT	AGGCAGAA
[H/N]704	GCTCAGGA	TCCTGAGC
[H/N]705	AGGAGTCC	GGACTCCT
[H/N]706	CATGCCTA	TAGGCATG
[H/N]707	GTAGAGAG	CTCTCTAC
[H/N]708	CCTCTCTG	CAGAGAGG
[H/N]709	AGCGTAGC	GCTACGCT
[H/N]710	CAGCCTCG	CGAGGCTG
[H/N]711	TGCCTCTT	AAGAGGCA
[H/N]712	TCCTCTAC	GTAGAGGA
[H/N]714	TCATGAGC	GCTCATGA
[H/N]715	CCTGAGAT	ATCTCAGG
[H/N]716	TAGCGAGT	ACTCGCTA
[H/N]718	GTAGCTCC	GGAGCTAC
[H/N]719	TACTACGC	GCGTAGTA
[H/N]720	AGGCTCCG	CGGAGCCT
[H/N]721	GCAGCGTA	TACGCTGC
[H/N]722	CTGCGCAT	ATGCGCAG
[H/N]723	GAGCGCTA	TAGCGCTC
[H/N]724	CGCTCAGT	ACTGAGCG
[H/N]726	GTCTTAGG	CCTAAGAC
[H/N]727	ACTGATCG	CGATCAGT
[H/N]728	TAGCTGCA	TGCAGCTA
[H/N]729	GACGTCGA	TCGACGTC

Index 2 (i5) Adapters

The i5 index names vary by kit:

- E5xx—Nextera Rapid Capture Custom Enrichment Kit
- H5xx—Nextera DNA CD Indexes (combinatorial dual)
- N5xx—Nextera Index Kit
- S5xx—Nextera XT Index Kit v2

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

i5 Index Name	Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
[E/H/N/S]501	TAGATCGC	TAGATCGC	GCGATCTA
[E/H/N/S]502	CTCTCTAT	CTCTCTAT	ATAGAGAG
[E/H/N/S]503	TATCCTCT	TATCCTCT	AGAGGATA
[E/H/N/S]504	AGAGTAGA	AGAGTAGA	TCTACTCT
[E/H/N/S]505	GTAAGGAG	GTAAGGAG	CTCCTTAC
[E/H/N/S]506	ACTGCATA	ACTGCATA	TATGCAGT
[E/H/N/S]507	AAGGAGTA	AAGGAGTA	TACTCCTT
[E/H/N/S]508	CTAAGCCT	CTAAGCCT	AGGCTTAG
[E/H/N/S]510	CGTCTAAT	CGTCTAAT	ATTAGACG
[E/H/N/S]511	TCTCTCCG	TCTCTCCG	CGGAGAGA
[E/H/N/S]513	TCGACTAG	TCGACTAG	CTAGTCGA
[E/H/N/S]515	TTCTAGCT	TTCTAGCT	AGCTAGAA
[E/H/N/S]516	CCTAGAGT	CCTAGAGT	ACTCTAGG
[E/H/N/S]517	GCGTAAGA	GCGTAAGA	TCTTACGC
[E/H/N/S]518	CTATTAAG	CTATTAAG	CTTAATAG
[E/H/N/S]520	AAGGCTAT	AAGGCTAT	ATAGCCTT
[E/H/N/S]521	GAGCCTTA	GAGCCTTA	TAAGGCTC
[E/H/N/S]522	TTATGCGA	TTATGCGA	TCGCATAA

Sequences for Illumina miRNA UD Indexes

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

Adapter Trimming

The following sequence is used for adapter trimming.

AGATCGGAAGAGCACACGTCTGAACTCCAGTCA

Plate A Index Adapters

Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
A01	MUDP001	TGAACGTTGT	ATGGCCGACT	AGTCGGCCAT
B01	MUDP002	ACCAGACTTG	CGATGAGCAC	GTGCTCATCG
C01	MUDP003	ACTGGCGAAC	GATAAGTCGA	TCGACTTATC
D01	MUDP004	GCGTTAGGCA	TCACGCCTTG	CAAGGCGTGA
E01	MUDP005	TTATCGGCCT	AGGAACACAA	TTGTGTTCCT
F01	MUDP006	GAGGTATAAG	CTCAGTAGGC	GCCTACTGAG
G01	MUDP007	TCAAGGATTC	GAAGTGCCTG	CAGGCACTTC
H01	MUDP008	CGAACCGAGA	TCTCTCGCCT	AGGCGAGAGA
A02	MUDP009	GAGCCAAGTT	AGGCACCTTC	GAAGGTGCCT
B02	MUDP010	AAGGCCGTAG	CTGTTGGTAA	TTACCAACAG
C02	MUDP011	TTAGAGAAGC	GCTGGTACCT	AGGTACCAGC
D02	MUDP012	TCTAAGACCA	TAAGGAGCGG	CCGCTCCTTA
E02	MUDP013	TGTAACCACT	AATCGCTCCA	TGGAGCGATT
F02	MUDP014	CCGACACAAG	CTCCTAATTG	CAATTAGGAG
G02	MUDP015	CTCTGATGGC	GCCTCATAAT	ATTATGAGGC
H02	MUDP016	CGGCCTGTTA	TGTATTGAGC	GCTCAATACA
A03	MUDP017	TGCATAGCTT	AGCCATAACA	TGTTATGGCT
B03	MUDP018	AACCTTCTCG	CCACAAGTGG	CCACTTGTGG
C03	MUDP019	AAGAGATCAC	GTTATCACAC	GTGTGATAAC
D03	MUDP020	GCCTGAAGGA	TACCGTTCTT	AAGAACGGTA
E03	MUDP021	ATTGTGCCTT	AGGCGTTAGG	CCTAACGCCT
F03	MUDP022	CTCCTTGGCA	TGGTTGGCGA	TCGCCAACCA
G03	MUDP023	TACCATGAAC	GTAATAGCCA	TGGCTATTAC
H03	MUDP024	CATTGGCAGA	TAGCGCCGAT	ATCGGCGCTA
A04	MUDP025	CACTGCTATT	CATTCTTGGA	TCCAAGAATG
B04	MUDP026	AATGGTAGGT	ATGCAAGGTT	AACCTTGCAT
C04	MUDP027	GATACCTATG	CGCCAGACAA	TTGTCTGGCG

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Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
D04	MUDP028	CACTAGGTAC	GAAGGTTGGC	GCCAACCTTC
E04	MUDP029	AGCTCGTTCA	TCGCATCACG	CGTGATGCGA
F04	MUDP030	TGTCAGTCTT	CCGGTCATGA	TCATGACCGG
G04	MUDP031	GATGAACAGT	ATTCACAAGC	GCTTGTGAAT
H04	MUDP032	ACAATCGGCG	CAACCTGTAA	TTACAGGTTG
A05	MUDP033	GATTGAGTTC	GCCAGTCGTT	AACGACTGGC
B05	MUDP034	GTAATGCCAA	TGCCTTGTCG	CGACAAGGCA
C05	MUDP035	TCGTTGCGCT	CTATCCGCTG	CAGCGGATAG
D05	MUDP036	AGGTGAGTAT	AATGCCGGAA	TTCCGGCATT
E05	MUDP037	TCGATAATGG	CGGTTATCCG	CGGATAACCG
F05	MUDP038	GCGTCTCTTC	GCGGAAGAGT	ACTCTTCCGC
G05	MUDP039	GTCTCCTGCA	TTGGTTAGTC	GACTAACCAA
H05	MUDP040	GAGCTTCATT	TTCAGTGTGA	TCACACTGAA
A06	MUDP041	AGGCCTACAT	AGAATTCTGG	CCAGAATTCT
B06	MUDP042	TGTGGAACCG	CATTGACTCT	AGAGTCAATG
C06	MUDP043	CGTATTAAGC	GCGGCTTCAA	TTGAAGCCGC
D06	MUDP044	CCAGTGGTTA	TTATGGTCTC	GAGACCATAA
E06	MUDP045	GCGTTCGAGT	CGTAACCAGG	CCTGGTTACG
F06	MUDP046	CCTTCCGGTT	AGCTCAGATA	TATCTGAGCT
G06	MUDP047	CACAAGACGG	CCGGTGTTAC	GTAACACCGG
H06	MUDP048	GCTTACACAC	GACCTAACCT	AGGTTAGGTC
A07	MUDP049	AGGATGTCCA	TTGTAGAAGG	CCTTCTACAA
B07	MUDP050	CACCTTATGT	CCTAGCACTA	TAGTGCTAGG
C07	MUDP051	AAGCGGCTGT	ATCGTGTTCT	AGAACACGAT
D07	MUDP052	TTCCTGTGAG	CCAACTTATC	GATAAGTTGG
E07	MUDP053	AGTACAGTTC	GAAGCCAAGG	CCTTGGCTTC
F07	MUDP054	TACAGCCTCA	TGGAGTTCAA	TTGAACTCCA
G07	MUDP055	GTTCTATTGG	CTTCAATCCT	AGGATTGAAG

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Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
H07	MUDP056	ATATACCGGT	ATCTTGCGTG	CACGCAAGAT
A08	MUDP057	CCTCGGAATG	CGTCTAAGGT	ACCTTAGACG
B08	MUDP058	GTTCTGGAAC	GAGGTGAACA	TGTTCACCTC
C08	MUDP059	AGATTCACCA	TCAGAACTAC	GTAGTTCTGA
D08	MUDP060	TCGGTCAGAT	CGGATATTGA	TCAATATCCG
E08	MUDP061	CACTCTCGCT	AGGAGTAGAT	ATCTACTCCT
F08	MUDP062	GTTGGTCCAG	CCGCCGAATA	TATTCGGCGG
G08	MUDP063	AGCTCGAAGC	GAGTCTATAC	GTATAGACTC
H08	MUDP064	AGAGGTTCTA	TTATTACCGG	CCGGTAATAA
A09	MUDP065	ATGACTCGAA	CGCTCGTTAG	CTAACGAGCG
B09	MUDP066	GAACAATCCT	AACAACGCTG	CAGCGTTGTT
C09	MUDP067	TGGCAAGGAG	CGCGGCTATT	AATAGCCGCG
D09	MUDP068	GAATATTGGC	GCTCGACACA	TGTGTCGAGC
E09	MUDP069	CCGGAACCTA	TTCTTCCAAC	GTTGGAAGAA
F09	MUDP070	ACTTGTTCGG	TTGGCGGTTG	CAACCGCCAA
G09	MUDP071	CAAGTCCAAT	AACAGGCAAT	ATTGCCTGTT
H09	MUDP072	AACCGCAAGG	CAGAATGGCG	CGCCATTCTG
A10	MUDP073	ACGTTGACTC	GTTGAGATTC	GAATCTCAAC
B10	MUDP074	CCACTTAACA	TGTGTGCGGA	TCCGCACACA
C10	MUDP075	AGCAGTTCCT	GTTCGGCGAA	TTCGCCGAAC
D10	MUDP076	TCGCCTTCGT	AGCTGTATTG	CAATACAGCT
E10	MUDP077	TAGGACTGCG	CAGCGGATGA	TCATCCGCTG
F10	MUDP078	TCCGAGCGAA	GTCCTTGGAT	ATCCAAGGAC
G10	MUDP079	TTCGGTTGTT	TCTAGATGCT	AGCATCTAGA
H10	MUDP080	ACAGGAGGAA	CGAGCCACAT	ATGTGGCTCG
A11	MUDP081	CCTCCATTAA	ATGGAATGGA	TCCATTCCAT
B11	MUDP082	AGTCGCGGTT	CATTCCTCAC	GTGAGGAATG
C11	MUDP083	CTCATCCAGG	GCATAGGAAG	CTTCCTATGC

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Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
D11	MUDP084	TGTGGTTGAA	TGTTCGTGTT	AACACGAACA
E11	MUDP085	TTATGCGTGG	TAAGACCGTT	AACGGTCTTA
F11	MUDP086	GCGAATGTAT	ATGGTACCAG	CTGGTACCAT
G11	MUDP087	GTCAAGCTCG	CCGACAGCTT	AAGCTGTCGG
H11	MUDP088	TAGAGTTGGA	GACGATATGA	TCATATCGTC
A12	MUDP089	CTGATGATCT	TTGTACTCCA	TGGAGTACAA
B12	MUDP090	ACTAGGTGTT	GTGCACATAA	TTATGTGCAC
C12	MUDP091	CTGTTAGCGG	AGGACAAGTA	TACTTGTCCT
D12	MUDP092	ATCGCACCAA	CCGATTCGAG	CTCGAATCGG
E12	MUDP093	CTTACTTGGT	GTAGGAACTT	AAGTTCCTAC
F12	MUDP094	CCTTAATGCG	TACACTACGA	TCGTAGTGTA
G12	MUDP095	TCTCGCCTAG	ATGACCTTGA	TCAAGGTCAT
H12	MUDP096	TCTTCAGAGA	CTACGTGACG	CGTCACGTAG

Plate B Index Adapters

Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
A01	MUDP097	TACCGGTGGT	AACAATCAGG	CCTGATTGTT
B01	MUDP098	AGGTGTTACG	CTGGTGTGCA	TGCACACCAG
C01	MUDP099	ACAGACCGAC	GCATATCCTT	AAGGATATGC
D01	MUDP100	CGAATACGTA	TGTCCTGTAC	GTACAGGACA
E01	MUDP101	TAGCATCGAT	AGAACGTCGC	GCGACGTTCT
F01	MUDP102	CCATGAGTCG	CACGGACTAG	CTAGTCCGTG
G01	MUDP103	ACTAACATGC	GTTGAACACT	AGTGTTCAAC
H01	MUDP104	ACACTCTCTA	TCGCGTGGTA	TACCACGCGA
A02	MUDP105	GCTCTTGCCT	AGCCACTATG	CATAGTGGCT
B02	MUDP106	AATCTTGAGG	CCACCTACCA	TGGTAGGTGG

Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
C02	MUDP107	CTTAACGGTC	GTTCCGGTGT	ACACCGGAAC
D02	MUDP108	TTGTGACCAA	TAGGTCTGAC	GTCAGACCTA
E02	MUDP109	TCACACACCT	AGGAAGCATT	AATGCTTCCT
F02	MUDP110	CTGCAATTAG	CCTTAGTTGG	CCAACTAAGG
G02	MUDP111	CTCCTTACTC	GTCCTATTCA	TGAATAGGAC
H02	MUDP112	GCAACGCAGA	TAAGATGGAC	GTCCATCTTA
A03	MUDP113	CCTTACCAAT	AGGCCATGGT	ACCATGGCCT
B03	MUDP114	TTAATCCTCG	CATTGGCCAA	TTGGCCAATG
C03	MUDP115	TTCCGAGTTC	GCTATGAATC	GATTCATAGC
D03	MUDP116	CTCGAGAGGA	TTGGTCCTCG	CGAGGACCAA
E03	MUDP117	TGTTGGCTGT	AGCGACATAC	GTATGTCGCT
F03	MUDP118	CGTATCTGCG	CAAGTAGTCT	AGACTACTTG
G03	MUDP119	CCATAGTATC	GTCAAGAAGA	TCTTCTTGAC
H03	MUDP120	TGGACAGTAA	TCCTGTTATG	CATAACAGGA
A04	MUDP121	GTACCTTGTT	AAGTGCGATA	TATCGCACTT
B04	MUDP122	GAGTGCCTCT	AGGCTACACG	CGTGTAGCCT
C04	MUDP123	TAAGTAGCGG	CTATATCGGC	GCCGATATAG
D04	MUDP124	CGTGGTGTTC	GCTAAGGTAA	TTACCTTAGC
E04	MUDP125	CATTCCTGAA	TAACCTGGTT	AACCAGGTTA
F04	MUDP126	AAGATGCATG	AGTTGGTCTA	TAGACCAACT
G04	MUDP127	CCTTGGAGCT	ATGCAGCTGG	CCAGCTGCAT
H04	MUDP128	ACCGGAACAG	CGTTGCCTTC	GAAGGCAACG
A05	MUDP129	GAATGGAAGC	GCGTGGAGAA	TTCTCCACGC
B05	MUDP130	GTTCTCCATA	TACGCCTCCT	AGGAGGCGTA
C05	MUDP131	GTCACTATGT	AATTCGGTAG	CTACCGAATT
D05	MUDP132	TGGTAGAACT	ATTGTCGAAC	GTTCGACAAT
E05	MUDP133	ACGCCTATGG	CAACCTTGCG	CGCAAGGTTG
F05	MUDP134	AATCCGTTAC	GCACTGCGTA	TACGCAGTGC

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Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
G05	MUDP135	GTTGAGGCTA	TGCTAGTAGT	ACTACTAGCA
H05	MUDP136	TATCAACTGG	AAGTCACGGA	TCCGTGACTT
A06	MUDP137	AAGAGGAGAT	AGCGATTGAA	TTCAATCGCT
B06	MUDP138	GTCTTCTCGG	CTACCTCTCT	AGAGAGGTAG
C06	MUDP139	GAAGCCACTC	GACAACTGTC	GACAGTTGTC
D06	MUDP140	GTAGGACACA	TCCATTGCGG	CCGCAATGGA
E06	MUDP141	CTCCTCGTAT	AGCCTCGCAA	TTGCGAGGCT
F06	MUDP142	CCACATGATT	AATACAGGCT	AGCCTGTATT
G06	MUDP143	AGACGGTTGG	CGGACCGTTA	TAACGGTCCG
H06	MUDP144	CTAGGTTGAC	GCGCTTATGC	GCATAAGCGC
A07	MUDP145	AAGCGTACCA	TTAACACGAG	CTCGTGTTAA
B07	MUDP146	TCATGTTGGT	CGCCTCTAGA	TCTAGAGGCG
C07	MUDP147	TTGGAATGGT	AATCGACCTT	AAGGTCGATT
D07	MUDP148	GTGTATGTTG	CCGCAATAAC	GTTATTGCGG
E07	MUDP149	TCCTGTCAAC	GTTCCAACGA	TCGTTGGAAC
F07	MUDP150	TAATCAGGCA	TGTTAGACCG	CGGTCTAACA
G07	MUDP151	GTAGTGGATT	AACCTCATAG	CTATGAGGTT
H07	MUDP152	AATTGCGCAT	ATGAATCCAC	GTGGATTCAT
A08	MUDP153	GACAATAACG	CGGCTTAATT	AATTAAGCCG
B08	MUDP154	ACAGTTAAGC	GAGTTGCAGG	CCTGCAACTC
C08	MUDP155	AGCCACACTA	TCCACGAACA	TGTTCGTGGA
D08	MUDP156	CAATCGTCTT	TGACGGAGGA	TCCTCCGTCA
E08	MUDP157	AGGAGCTTGT	AATGAGTACG	CGTACTCATT
F08	MUDP158	TTGAGCGGAG	CGTCTTCCGA	TCGGAAGACG
G08	MUDP159	AGTAGCTCTC	GACAGAGATT	AATCTCTGTC
H08	MUDP160	CACGCTGTCA	TTACGCTAAC	GTTAGCGTAA
A09	MUDP161	AAGACCTCTT	CTCCTCGAAG	CTTCGAGGAG
B09	MUDP162	GACCTCTTCT	ATACCGCAGA	TCTGCGGTAT

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Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
C09	MUDP163	TACTTCCTTG	CCTATCTGAT	ATCAGATAGG
D09	MUDP164	TGCGATACGC	GATCGGTTAC	GTAACCGATC
E09	MUDP165	GCAGGCTTAA	TGGTGAGGTG	CACCTCACCA
F09	MUDP166	TAAGCTTGTG	AACCGGCGTA	TACGCCGGTT
G09	MUDP167	ATGGTCCGCT	AATACCGATC	GATCGGTATT
H09	MUDP168	ATGTCAGAAG	CGATACTCAA	TTGAGTATCG
A10	MUDP169	GACGAAGGTC	GTAAGGCGGT	ACCGCCTTAC
B10	MUDP170	ATCACCGTGA	TTCAAGGTCG	CGACCTTGAA
C10	MUDP171	GCTACAGTGT	TATCCGAGTA	TACTCGGATA
D10	MUDP172	CGTCGAATAT	AGCGCGCTTA	TAAGCGCGCT
E10	MUDP173	CAACCATCGG	CCGGAGACAT	ATGTCTCCGG
F10	MUDP174	CGGTCCATTC	GAGATAACTG	CAGTTATCTC
G10	MUDP175	AGAAGAGCCA	TTGTAAGCGC	GCGCTTACAA
H10	MUDP176	CTATGCAATG	CAAGAGGAGG	CCTCCTCTTG
A11	MUDP177	CACTGAACCG	AACCTTAGGA	TCCTAAGGTT
B11	MUDP178	TACTGTGTGA	CTGGCAACTC	GAGTTGCCAG
C11	MUDP179	GCATTCTGTT	GAACTTGTTG	CAACAAGTTC
D11	MUDP180	CTCCGCTAAG	TGTGCAAGAT	ATCTTGCACA
E11	MUDP181	TCGCTTGAGA	AATCGAGAGA	TCTCTCGATT
F11	MUDP182	AACTAGCCTT	AGCGTGTCAG	CTGACACGCT
G11	MUDP183	TTCGCTCAGG	CTTGGTGATT	AATCACCAAG
H11	MUDP184	CTCTACAACA	GAAGCAGCAA	TTGCTGCTTC
A12	MUDP185	TGAGTGTGTT	TTCCGTCGAC	GTCGACGGAA
B12	MUDP186	TAGTTAGTCG	CGAGATGCCA	TGGCATCTCG
C12	MUDP187	GCCTGATCCT	AAGTTCGTGC	GCACGAACTT
D12	MUDP188	CGAGTACAGG	CGTCCATAAG	CTTATGGACG
E12	MUDP189	GCCTAGATTA	TTGTGGCATA	TATGCCACAA
F12	MUDP190	CCAATGGCAC	TTCTTGGCAG	CTGCCAAGAA

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Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
G12	MUDP191	CCGTGCAAGA	CATTCTACTG	CAGTAGAATG
H12	MUDP192	CTGGCTGGTT	ATCGCCGTAG	CTACGGCGAT

Plate C Index Adapters

Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
A01	MUDP193	CGTTAGGATT	ATCCTTACAC	GTGTAAGGAT
B01	MUDP194	TTCCATTACG	CGCAAGGACT	AGTCCTTGCG
C01	MUDP195	TAGCGGTAAC	GCTGGCGTTA	TAACGCCAGC
D01	MUDP196	GTAGCCAGGA	TACTTAGAGG	CCTCTAAGTA
E01	MUDP197	AGGATACTCT	ATGGCGATGC	GCATCGCCAT
F01	MUDP198	TATCCTCCAG	CATTGGTGCG	CGCACCAATG
G01	MUDP199	TAAGTCGTTC	GCGAGATATA	TATATCTCGC
H01	MUDP200	TCCGGATTGA	TGACTGCTAT	ATAGCAGTCA
A02	MUDP201	ACGTCTTGTT	AACGTCCGCT	AGCGGACGTT
B02	MUDP202	ATGAAGTGCG	CGCACATGTC	GACATGTGCG
C02	MUDP203	CGATCACTGC	GCACACCTGA	TCAGGTGTGC
D02	MUDP204	CCTATCGGAA	TTGTCCAGAG	CTCTGGACAA
E02	MUDP205	CAGAGAGCTT	AGCCTTCCTG	CAGGAAGGCT
F02	MUDP206	GCAACTTGCG	CCTTACGCCA	TGGCGTAAGG
G02	MUDP207	TATGGAGGAC	GAATACGTAC	GTACGTATTC
H02	MUDP208	TGAGATCAGA	TTGGCACCGT	ACGGTGCCAA
A03	MUDP209	TCAGCCTATT	ATTAGGTGGC	GCCACCTAAT
B03	MUDP210	GTTGTGAGCG	CGATCAAGAA	TTCTTGATCG
C03	MUDP211	TCAGTAACAC	GCTGTCTTCT	AGAAGACAGC
D03	MUDP212	AAGGCTCAGA	TACATGTCTG	CAGACATGTA
E03	MUDP213	GTGTGGTGGT	AACCAGTTGA	TCAACTGGTT

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Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
F03	MUDP214	CCGAGCTTAG	CCGGTAAGCT	AGCTTACCGG
G03	MUDP215	ATCACGCTTC	GTTCGAATAG	CTATTCGAAC
H03	MUDP216	TAGCTATGCA	TGTCAGGCTC	GAGCCTGACA
A04	MUDP217	TGTTCCTCAT	CAACAGTGTT	AACACTGTTG
B04	MUDP218	CATACCTTCT	AAGAGAGGAA	TTCCTCTCTT
C04	MUDP219	GCCTTCAATG	CGGTTGTAGC	GCTACAACCG
D04	MUDP220	CTTGACCAGC	GCCTGAAGTG	CACTTCAGGC
E04	MUDP221	CTACACACAA	TTACGACACT	AGTGTCGTAA
F04	MUDP222	TAGGCTGAAT	CGCCTAGATC	GATCTAGGCG
G04	MUDP223	TCGGAGTCCT	AATCTGGATG	CATCCAGATT
H04	MUDP224	AACATCGCGG	CGACGGTACA	TGTACCGTCG
A05	MUDP225	GTTGTCTTAC	GTAGTATTGC	GCAATACTAC
B05	MUDP226	GTGGCAACTA	TCCAGCGGAT	ATCCGCTGGA
C05	MUDP227	GAGCAGGCAT	CAACCACCTC	GAGGTGGTTG
D05	MUDP228	AACGGCACCT	AGCTTAGGCG	CGCCTAAGCT
E05	MUDP229	AGTAACCTTG	CCGGTTCCTT	AAGGAACCGG
F05	MUDP230	TCTCATAAGC	GACATTGAAC	GTTCAATGTC
G05	MUDP231	TGCTTGCCAA	TTAGAGGCGA	TCGCCTCTAA
H05	MUDP232	CGGTTCCTGT	CAAGCCGAAC	GTTCGGCTTG
A06	MUDP233	CCAAGTAGAT	AGGAGAACGG	CCGTTCTCCT
B06	MUDP234	AAGGTTGGCG	CCTGTTAGAC	GTCTAACAGG
C06	MUDP235	TGCTCTGGTC	GTTCTACGTT	AACGTAGAAC
D06	MUDP236	ACTGTAACGA	TAAGTCCACA	TGTGGACTTA
E06	MUDP237	GATTCCAGGT	CAAGAACCAT	ATGGTTCTTG
F06	MUDP238	TTCACCAGAT	AGTTGATGAC	GTCATCAACT
G06	MUDP239	ACTTCCAAGG	CCTACTCTTG	CAAGAGTAGG
H06	MUDP240	CCGAATATTC	GAACAATCCA	TGGATTGTTC
A07	MUDP241	CTCTTATCCA	TTCTGTTGGT	ACCAACAGAA

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Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
B07	MUDP242	TCACAGCGGT	CATCGTCAGG	CCTGACGATG
C07	MUDP243	CCTCTGTCGT	ATGCATGAAG	CTTCATGCAT
D07	MUDP244	TCTGTTCTCG	CGTGAATCGC	GCGATTCACG
E07	MUDP245	GATACTTCAC	GAGCAGCCTT	AAGGCTGCTC
F07	MUDP246	AGTGCTGATA	TCGATTACCA	TGGTAATCGA
G07	MUDP247	ATCCTTCGGT	CAGTCCAATT	AATTGGACTG
H07	MUDP248	GACAACGATT	AGAGGCTTGG	CCAAGCCTCT
A08	MUDP249	GAACCGGTAG	CAGGCTCTCA	TGAGAGCCTG
B08	MUDP250	AGCAATGAGC	GTTCGCTCTC	GAGAGCGAAC
C08	MUDP251	CAAGACTCCA	TCGGACTAAT	ATTAGTCCGA
D08	MUDP252	ACCGTGTAGG	CGAGATCTTC	GAAGATCTCG
E08	MUDP253	AGGCACAGGT	ATAACCGGAC	GTCCGGTTAT
F08	MUDP254	CGACAGATCG	CGTGTAGTTA	TAACTACACG
G08	MUDP255	ACGCGACAAC	GAACATAGGT	ACCTATGTTC
H08	MUDP256	ACTTGCGTTA	TCTAACATCG	CGATGTTAGA
A09	MUDP257	CACCACTCAT	AACGGTGGCA	TGCCACCGTT
B09	MUDP258	CTTCGTAACT	AGGACGGTGT	ACACCGTCCT
C09	MUDP259	CAGTATTCGG	CTGTGACCTG	CAGGTCACAG
D09	MUDP260	CAGTCTGGAC	GCTGTAACAA	TTGTTACAGC
E09	MUDP261	TACCGTTCTA	TACGGACGTC	GACGTCCGTA
F09	MUDP262	GTGTCCACAG	CCTAAGGAGC	GCTCCTTAGG
G09	MUDP263	TTACGACTGT	ATAAGGCCAG	CTGGCCTTAT
H09	MUDP264	GACGCGAATG	CTCATCTGTA	TACAGATGAG
A10	MUDP265	CAACGTACGC	GAAGGCATCT	AGATGCCTTC
B10	MUDP266	AGCTCAGGAA	TCTCTACTGC	GCAGTAGAGA
C10	MUDP267	GATAGGCGGT	AACCGAACAA	TTGTTCGGTT
D10	MUDP268	AGTAGGAAGT	ATCTCGCCAC	GTGGCGAGAT
E10	MUDP269	CATGTTGTAG	CCATGCAACG	CGTTGCATGG

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Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
F10	MUDP270	CACATTCTTC	GAATGGTGTA	TACACCATTC
G10	MUDP271	GCAGCTCGTA	TATATGCCGT	ACGGCATATA
H10	MUDP272	GTTCAGACGG	CTCGATAGAT	ATCTATCGAG
A11	MUDP273	TCCTGGAAGT	AACACAAGAG	CTCTTGTGTT
B11	MUDP274	GCATTGTTAG	CGCAATCGGT	ACCGATTGCG
C11	MUDP275	GACCTACAGC	GTTGCGTAGA	TCTACGCAAC
D11	MUDP276	CACCGACGTA	TAGAGTGATC	GATCACTCTA
E11	MUDP277	CTCTCACCTT	AAGACGCAGC	GCTGCGTCTT
F11	MUDP278	CTCGTTCATT	AACTTCTCGA	TCGAGAAGTT
G11	MUDP279	TGGTGGCAAG	CGCAACTGAG	CTCAGTTGCG
H11	MUDP280	GATTGCTTGA	GCTCCGCAAT	ATTGCGGAGC
A12	MUDP281	CCGTTAAGGT	GTAACTTCCG	CGGAAGTTAC
B12	MUDP282	TGCTGAGAGG	CTCACGACTA	TAGTCGTGAG
C12	MUDP283	TTGTCACTTG	AACCAACGGC	GCCGTTGGTT
D12	MUDP284	GCTGTTATGT	CCTGCCTGTA	TACAGGCAGG
E12	MUDP285	GCAGCAGTTG	TACGCTGCAG	CTGCAGCGTA
F12	MUDP286	GCAGATCAAT	AATGTTGCGA	TCGCAACATT
G12	MUDP287	TGGTTCACGG	CGACGTTCTG	CAGAACGTCG
H12	MUDP288	TCGACCGCAT	AATAGGACAC	GTGTCCTATT

Plate D Index Adapters

Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
A01	MUDP289	TAACCTAGGT	ATGTGCCTCA	TGAGGCACAT
B01	MUDP290	AACTCATGCG	CGACTCCGTT	AACGGAGTCG
C01	MUDP291	CCGGATGAAC	GCTGTTGTGG	CCACAACAGC
D01	MUDP292	CGTTGCCGTA	TACCAATCAC	GTGATTGGTA

Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
E01	MUDP293	GCTCTACGGT	ATGTCTTACG	CGTAAGACAT
F01	MUDP294	TGCATTGGCG	CGCAACAATA	TATTGTTGCG
G01	MUDP295	CGATTGTGAC	GAACGAAGAC	GTCTTCGTTC
H01	MUDP296	GACTGCACTA	TCGAGGACGT	ACGTCCTCGA
A02	MUDP297	GTTAACTGCT	ATTATGAGCG	CGCTCATAAT
B02	MUDP298	TCGGACCTTG	CGCGTTATAA	TTATAACGCG
C02	MUDP299	TGCAGCAAGC	GCGTGCATGT	ACATGCACGC
D02	MUDP300	CACATGCGAA	TAAGCGGCTC	GAGCCGCTTA
E02	MUDP301	CAGACGTAAT	AACATGGAGA	TCTCCATGTT
F02	MUDP302	ATTCGGTACG	CCGAGTCTCT	AGAGACTCGG
G02	MUDP303	TTAGCACGGC	GTACTTCTAC	GTAGAAGTAC
H02	MUDP304	GAGGATAGTA	TGTTCACATG	CATGTGAACA
A03	MUDP305	AACTGTGGTT	AAGGTAACGC	GCGTTACCTT
B03	MUDP306	ATTACCTCGG	CCGCCTTACT	AGTAAGGCGG
C03	MUDP307	CGCTGTATAC	GTTGAGGCAG	CTGCCTCAAC
D03	MUDP308	CTTGCTCACA	TGGCGACCTA	TAGGTCGCCA
E03	MUDP309	CAACACCTGT	AGAAGCGACA	TGTCGCTTCT
F03	MUDP310	CAATTGCTCG	CAGGATAATC	GATTATCCTG
G03	MUDP311	CATAGACAAC	GCTCCTACAG	CTGTAGGAGC
H03	MUDP312	TTGGTGTCTA	TTCAACAGGT	ACCTGTTGAA
A04	MUDP313	TATGTCCTGT	CCTCGTCCAT	ATGGACGAGG
B04	MUDP314	GCCAATTCGT	AGCGTTGGTT	AACCAACGCT
C04	MUDP315	TAGGCGATCG	CATTCGAACA	TGTTCGAATG
D04	MUDP316	ATGAGTGTAC	GCTTACCGAC	GTCGGTAAGC
E04	MUDP317	CCGAAGGATA	TTAGCTTAGG	CCTAAGCTAA
F04	MUDP318	AGTCCACTGT	CCGACACACA	TGTGTGTCGG
G04	MUDP319	GCGGCTAATT	ATTCGCTGAT	ATCAGCGAAT
H04	MUDP320	TCTAACTCAG	CCAAGAGGCA	TGCCTCTTGG

Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
A05	MUDP321	CAAGCTGAGC	GACGCAGTTC	GAACTGCGTC
B05	MUDP322	CCAGAGCACA	TGGAACTCGG	CCGAGTTCCA
C05	MUDP323	TGTACAAGGT	CCACACCAAT	ATTGGTGTGG
D05	MUDP324	TAGAATGCCT	AGTTCTCGGC	GCCGAGAACT
E05	MUDP325	TGTCTTACTG	CTTGACGACG	CGTCGTCAAG
F05	MUDP326	ATGACTAAGC	GAGGTCGCTA	TAGCGACCTC
G05	MUDP327	ATGTAGGCAA	TCAGTAGCAT	ATGCTACTGA
H05	MUDP328	GCGAAGAGGT	CTAACGTGGA	TCCACGTTAG
A06	MUDP329	CGGTGGTTCT	ATGCCAACCG	CGGTTGGCAT
B06	MUDP330	CTGTCGTTGG	CGGTCGATTC	GAATCGACCG
C06	MUDP331	TGATCGACAC	GAAGTACAGT	ACTGTACTTC
D06	MUDP332	CCACCAGCTA	TCTGCAGTAA	TTACTGCAGA
E06	MUDP333	CACGGTTCGT	CTATCCTAGC	GCTAGGATAG
F06	MUDP334	AGTGAGAGCT	AACACTCCTT	AAGGAGTGTT
G06	MUDP335	TTGCATGCGG	CCGAACCTAA	TTAGGTTCGG
H06	MUDP336	TATACGTGTC	GTCTAGTCGC	GCGACTAGAC
A07	MUDP337	TGACGCGTTA	TGGATGTACG	CGTACATCCA
B07	MUDP338	TACAGAACGT	CTACCAGCGT	ACGCTGGTAG
C07	MUDP339	CTTGTCAGGT	AAGGATTCAG	CTGAATCCTT
D07	MUDP340	ATCCACAGCG	CGAGGTGTGT	ACACACCTCG
E07	MUDP341	CCTATCCATC	GTAGACGCTC	GAGCGTCTAC
F07	MUDP342	ACCGCGAGTA	TCGTCCGTCA	TGACGGACGA
G07	MUDP343	AAGTTCTGGT	CCGTGATAGG	CCTATCACGG
H07	MUDP344	ACAGGTATCG	AGGATGACCT	AGGTCATCCT
A08	MUDP345	ATGACGGATT	CCTCGAGTAC	GTACTCGAGG
B08	MUDP346	GTCTGAGTAG	GTCACTGAGG	CCTCAGTGAC
C08	MUDP347	TGCCAGATGT	TACGGTTAGA	TCTAACCGTA
D08	MUDP348	GCTAAGCATT	CAACGAGAAT	ATTCTCGTTG

Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
E08	MUDP349	ACAGCATGGT	AATACACCGG	CCGGTGTATT
F08	MUDP350	ATAGAGACCG	CCGATCCATC	GATGGATCGG
G08	MUDP351	ATATCGCGTA	GAATCTCGCT	AGCGAGATTC
H08	MUDP352	TTAAGGAGGT	TGACCGGCAA	TTGCCGGTCA
A09	MUDP353	CTGTGCGACT	CATGATAGCA	TGCTATCATG
B09	MUDP354	TCCGTATGCT	AACAGCTTCG	CGAAGCTGTT
C09	MUDP355	CCATCGATGT	CTAGTGCTTA	TAAGCACTAG
D09	MUDP356	GTGAGCCGTT	TGTGATACGT	ACGTATCACA
E09	MUDP357	TGCCGTTAAT	ATGAGCGTAT	ATACGCTCAT
F09	MUDP358	CGGATGTGGT	CTAGATATGG	CCATATCTAG
G09	MUDP359	TCGCGTGTTG	CGCTATGCTG	CAGCATAGCG
H09	MUDP360	CCGCGATCAT	TACTACGTGA	TCACGTAGTA
A10	MUDP361	CGCGTTATCG	ATGTGGAGGT	ACCTCCACAT
B10	MUDP362	GTAGCCTCCT	CCATGGCTCA	TGAGCCATGG
C10	MUDP363	ACTAGACACT	CCAATCACGC	GCGTGATTGG
D10	MUDP364	CGATTCGTTG	TTAGATCCAG	CTGGATCTAA
E10	MUDP365	GAAGAGATGT	AGGAATATCG	CGATATTCCT
F10	MUDP366	AGATCCGACG	CCTCCTATGT	ACATAGGAGG
G10	MUDP367	CCAGGACATT	TAGAGACACG	CGTGTCTCTA
H10	MUDP368	ACGTGGCATT	CCAGCTCAGT	ACTGAGCTGG
A11	MUDP369	AAGCAGGACG	ATGGCTCATA	TATGAGCCAT
B11	MUDP370	ACGAGTCGGT	CGGAGTGAAG	CTTCACTCCG
C11	MUDP371	AGTGTACGCG	TACCTATGGT	ACCATAGGTA
D11	MUDP372	ACCGACCATT	ATGAGACAGT	ACTGTCTCAT
E11	MUDP373	TTGCTAACGT	CTAAGAGTTG	CAACTCTTAG
F11	MUDP374	CTTGATACTG	TAACCGTATG	CATACGGTTA
G11	MUDP375	CTGGATAAGT	AGAGTCCATG	CATGGACTCT
H11	MUDP376	ACCGAAGCCA	GACTCTTCCA	TGGAAGAGTC

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Well	Index Name	i7 Bases for Sample Sheet	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
A12	MUDP377	GTCCATGAGT	TATGGCTTGT	ACAAGCCATA
B12	MUDP378	ACTCCAGTCG	CGTTGTTCCT	AGGAACAACG
C12	MUDP379	TCTCAGCACG	CCGACATTAG	CTAATGTCGG
D12	MUDP380	ATCGTGATGT	TGTGAAGGCA	TGCCTTCACA
E12	MUDP381	TGGAAGAGTC	TGGCTTCGGT	ACCGAAGCCA
F12	MUDP382	GAGATCGGCT	CCGACTAGGA	TCCTAGTCGG
G12	MUDP383	CTACGTCTCG	AACATTACCG	CGGTAATGTT
H12	MUDP384	CTCAGGCTGT	CCTAATTCGT	ACGAATTAGG

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Sequences for AmpliSeq for Illumina Panels

The AmpliSeq for Illumina CD and UD index adapters are arranged in the plate to enforce the recommended pairing strategy.

Adapter Trimming

The following sequence is used for Read 1 and Read 2 adapter trimming.

```
CTGTCTCTTATACACATCT
```

Index 1 (i7) Adapters

```
CAAGCAGAAGACGGCATACGAGAT[i7]GTCTCGTGGGCTCGGAGATGTGTATAAGAGACAG
```

i7 Index Name	i7 Bases for Sample Sheet
Q7005	GTGAATAT
Q7006	ACAGGCGC
Q7007	CATAGAGT
Q7008	TGCGAGAC
Q7015	TCTCTACT
Q7016	CTCTCGTC
Q7017	CCAAGTCT
Q7018	TTGGACTC
Q7023	GCAGAATT
Q7024	ATGAGGCC
Q7025	ACTAAGAT
Q7026	GTCGGAGC
Q7027	AGCCTCAT
Q7028	GATTCTGC
Q7029	TCGTAGTG
Q7030	CTACGACA
Q7035	ATGGCATG
Q7036	GCAATGCA
Q7039	CTTATCGG

i7 Index Name	i7 Bases for Sample Sheet
Q7040	TCCGCTAA
Q7041	GATCTATC
Q7042	AGCTCGCT
Q7047	ACACTAAG
Q7048	GTGTCGGA

Index 2 (i5) Adapters

AATGATACGGCGACCACCGAGATCTACAC[i5]TCGTCGGCAGCGTCAGATGTGTATAAGAGACAG

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

i5 Index Name	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
Q5001	AGCGCTAG	CTAGCGCT
Q5002	GATATCGA	TCGATATC
Q5003	CGCAGACG	CGTCTGCG
Q5004	TATGAGTA	TACTCATA
Q5007	ACATAGCG	CGCTATGT
Q5008	GTGCGATA	TATCGCAC
Q5009	CCAACAGA	TCTGTTGG
Q5010	TTGGTGAG	CTCACCAA
Q5013	AACCGCGG	CCGCGGTT
Q5014	GGTTATAA	TTATAACC
Q5017	CTAGCTTG	CAAGCTAG
Q5018	TCGATCCA	TGGATCGA
Q5025	ATACCAAG	CTTGGTAT
Q5026	GCGTTGGA	TCCAACGC
Q5027	CTTCACGG	CCGTGAAG
Q5028	TCCTGTAA	TTACAGGA
Q5029	CCTCGGTA	TACCGAGG
Q5030	TTCTAACG	CGTTAGAA

i5 Index Name	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
Q5031	CGCTCGTG	CACGAGCG
Q5032	TATCTACA	TGTAGATA
Q5035	CATTGTTG	CAACAATG
Q5036	TGCCACCA	TGGTGGCA
Q5039	ACGCCGCA	TGCGGCGT
Q5040	GTATTATG	CATAATAC

Sequences for TruSight Kits

This section lists the adapter sequences for Illumina TruSight library prep kits.

Refer to *IDT for Illumina UD Indexes* on page 26 for the following kits:

- TruSight Oncology 500 ctDNA v2
- TruSight Oncology 500 HT

TruSight Amplicon Panels

TruSight amplicon panels include the 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
A706	AACCCCTC
A707	CCCAACCT
A708	CACCACAC
A709	GAAACCCA
A710	TGTGACCA
A711	AGGGTCAA
A712	AGGAGTGG

Index 2 (i5) Adapters

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

i5 Index Name	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
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 DNA Enrichment Kits

TruSight DNA enrichment kits include TruSeq Neurodegeneration, TruSight Cancer, TruSight Cardio, TruSight One, TruSight Inherited Disease, and TruSight Rapid Capture.

Adapter Trimming

The following sequence is used for Read 1 and Read 2 adapter trimming.

CTGTCTCTTATACACATCT

Index 1 (i7) Adapters

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
N711	AAGAGGCA

i7 Index Name	i7 Bases for Sample Sheet
N712	GTAGAGGA

Index 2 (i5) Adapter

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

i5 Index Name	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
E501	TAGATCGC	GCGATCTA
E502	CTCTCTAT	ATAGAGAG
E503	TATCCTCT	AGAGGATA
E504	AGAGTAGA	TCTACTCT
E505	GTAAGGAG	CTCCTTAC
E506	ACTGCATA	TATGCAGT
E507	AAGGAGTA	TACTCCTT
E508	CTAAGCCT	AGGCTTAG
E517	GCGTAAGA	TCTTACGC

TruSight Tumor 170 and TruSight Oncology 500

Adapter Trimming

The following sequences are used for adapter trimming.

Read 1

AGATCGGAAGAGCACACGTCTGAACTCCAGTCA

Read 2

AGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT

RNA Index 1 (i7) Adapters

i7 Index Name	Index Primer	i7 Bases for Sample Sheet
D702	UP01	TCCGGAGA
D707	UP02	CTGAAGCT
D717	UP03	CGTAGCTC

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

RNA Index 2 (i5) Adapters

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

i5 Index Name	Index Primer	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
D503	UP01	CCTATCCT	AGGATAGG
D504	UP02	GGCTCTGA	TCAGAGCC
D509	UP03	TTCGGATG	CATCCGAA
D510	UP04	ACTCATAA	TTATGAGT
D513	UP05	TTATTCGT	ACGAATAA
D515	UP06	AGCAGATC	GATCTGCT
D501	UP07	TATAGCCT	AGGCTATA
D502	UP08	ATAGAGGC	GCCTCTAT
D505	UP09	AGGCGAAG	CTTCGCCT
D506	UP10	TAATCTTA	TAAGATTA

i5 Index Name	Index Primer	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
D517	UP11	TACTTACT	AGTAAGTA
D518	UP12	AGGAAGTC	GACTTCCT
D511	UP13	GCGCCTCT	AGAGGCGC
D512	UP14	CGCGGCTA	TAGCCGCG
D514	UP15	CCTACGAA	TTCGTAGG
D516	UP16	GCGGAGCG	CGCTCCGC

DNA Index 1 (i7) Adapters

i7 Index Name	Index Primer	i7 Bases for Sample Sheet
D721	CP01	CATCGAGG
D723	CP02	CTCGACTG
D709	CP03	CGGCTATG
D711	CP04	TCTCGCGC
D723	CP05	CTCGACTG
D709	CP06	CGGCTATG
D711	CP07	TCTCGCGC
D721	CP08	CATCGAGG
D709	CP09	CGGCTATG
D711	CP10	TCTCGCGC
D721	CP11	CATCGAGG
D723	CP12	CTCGACTG
D711	CP13	TCTCGCGC
D721	CP14	CATCGAGG
D723	CP15	CTCGACTG
D709	CP16	CGGCTATG

DNA Index 2 (i5) Adapters

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

i5 Index Name	Index Primer	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
D507	CP01	CAGGACGT	ACGTCCTG
D508	CP02	GTACTGAC	GTCAGTAC
D519	CP03	GGCGACGG	CCGTCGCC
D520	CP04	CCTCGGAC	GTCCGAGG
D507	CP05	CAGGACGT	ACGTCCTG
D507	CP06	CAGGACGT	ACGTCCTG
D507	CP07	CAGGACGT	ACGTCCTG
D508	CP08	GTACTGAC	GTCAGTAC
D508	CP09	GTACTGAC	GTCAGTAC
D508	CP10	GTACTGAC	GTCAGTAC
D519	CP11	GGCGACGG	CCGTCGCC
D519	CP12	GGCGACGG	CCGTCGCC
D519	CP13	GGCGACGG	CCGTCGCC
D520	CP14	CCTCGGAC	GTCCGAGG
D520	CP15	CCTCGGAC	GTCCGAGG
D520	CP16	CCTCGGAC	GTCCGAGG

TruSight Oncology ctDNA

Refer to *IDT for Illumina UD Indexes* on page 26 for TruSight Oncology 500 ctDNA v2 kits.

Adapter Trimming

The following sequences are used for adapter trimming.

Read 1

```
AGATCGGAAGAGCACACGTCTGAACTCCAGTCA
```

Read 2

```
AGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT
```

DNA Index 1 (i7) Adapters

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

DNA Index 2 (i5) Adapters

i5 Index Name	Index Primer	i5 Bases for Sample Sheet
D503	UP01	CCTATCCT
D504	UP02	GGCTCTGA
D509	UP03	TTCGGATG
D510	UP04	ACTCATAA
D513	UP05	TTATTCGT
D515	UP06	AGCAGATC
D501	UP07	TATAGCCT
D502	UP08	ATAGAGGC
D505	UP09	AGGCGAAG

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i5 Index Name	Index Primer	i5 Bases for Sample Sheet
D506	UP10	TAATCTTA
D517	UP11	TACTTACT
D518	UP12	AGGAAGTC
D511	UP13	GCGCCTCT
D512	UP14	CGCGGCTA
D514	UP15	CCTACGAA
D516	UP16	GCGGAGCG

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Index 1 (i7) Adapters

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
R749	GATGCT
R711	GGCTAC
R712	CTTGTA
R725	ACTGAT
R726	ATGAGC
R727	ATTCCT
R728	CAAAAG
R729	CAACTA
R730	CACCGG

i7 Index Name	i7 Bases for Sample Sheet
R731	CACGAT
R732	CACTCA
R733	CAGGCG
R734	CATGGC
R735	CATTTT
R736	CCAACA

Index 2 (i5) Adapter

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

i5 Index Name	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
A501	TGAACCTT	AAGGTTCA
A502	TGCTAAGT	ACTTAGCA

TruSight RNA Pan-Cancer Panel

Adapter Trimming

The following sequences are used for adapter trimming.

Read 1

AGATCGGAAGAGCACACGTCTGAACTCCAGTCA

Read 2

AGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT

Universal Adapter

5′ AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTTCCGATCT

Index Adapters

Index adapter sequences are six bases as underlined. Enter the six underlined bases in the sample sheet.

The index numbering is not sequential, so indexes 17, 24, and 26 are skipped. Additionally, the bases preceding each index adapter sequence are the same, but the two bases following the index adapter sequence can vary.

Index Adapter 1

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACATCACGATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 2

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACCGATGTATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 3

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACTTAGGCATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 4

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACTGACCAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 5

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACACAGTGATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 6

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGCCAATATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 7

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACCAGATCATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 8

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACACTTGAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 9

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGATCAGATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 10

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACTAGCTTATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 11

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGGCTACATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 12

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 13

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACAGTCAACAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 14

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACAGTTCCGTATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 15

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACATGTCAGAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 16

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACCCGTCCCGATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 18

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGTCCGCACATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 19

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGTGAAACGATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 20

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGTGGCCTTATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 21

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGTTTCGGAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 22

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACCGTACGTAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 23

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGAGTGGATATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 25

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACACTGATATATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 27

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACATTCCTTTATCTCGTATGCCGTCTTCTGCTTG

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Sequences for TruSeq Kits

This section lists the adapter sequences for Illumina TruSeq library prep kits.

IDT for Illumina–TruSeq DNA and RNA UD Indexes

The IDT for Illumina TruSeq unique dual (UD) index adapters are arranged in the plate to enforce the recommended pairing strategy.

A-tailing is performed before adapter ligation. For example, the additional A base is in parentheses in the i7 adapter, as follows.

Index 1 (i7) Adapters

(A)GATCGGAAGAGCACACGTCTGAACTCCAGTCAC[i7]ATCTCGTATGCCGTCTTCTGCTTG

Adapter Trimming

The following sequences are used for adapter trimming.

Read 1

AGATCGGAAGAGCACACGTCTGAACTCCAGTCA

Read 2

AGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT

Index Adapters

Index 1 (i7) Adapters

GATCGGAAGAGCACACGTCTGAACTCCAGTCAC[i7]ATCTCGTATGCCGTCTTCTGCTTG

Index 2 (i5) Adapters

AATGATACGGCGACCACCGAGATCTACAC[i5]ACACTCTTTCCCTACACGACGCTCTTCCGATCT

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDI0001	CCGCGGTT	CCGCGGTT	AGCGCTAG	AGCGCTAG	CTAGCGCT

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDI0002	TTATAACC	TTATAACC	GATATCGA	GATATCGA	TCGATATC
UDI0003	GGACTTGG	GGACTTGG	CGCAGACG	CGCAGACG	CGTCTGCG
UDI0004	AAGTCCAA	AAGTCCAA	TATGAGTA	TATGAGTA	TACTCATA
UDI0005	ATCCACTG	ATCCACTG	AGGTGCGT	AGGTGCGT	ACGCACCT
UDI0006	GCTTGTCA	GCTTGTCA	GAACATAC	GAACATAC	GTATGTTC
UDI0007	CAAGCTAG	CAAGCTAG	ACATAGCG	ACATAGCG	CGCTATGT
UDI0008	TGGATCGA	TGGATCGA	GTGCGATA	GTGCGATA	TATCGCAC
UDI0009	AGTTCAGG	AGTTCAGG	CCAACAGA	CCAACAGA	TCTGTTGG
UDI0010	GACCTGAA	GACCTGAA	TTGGTGAG	TTGGTGAG	CTCACCAA
UDI0011	TCTCTACT	TCTCTACT	CGCGGTTC	CGCGGTTC	GAACCGCG
UDI0012	CTCTCGTC	CTCTCGTC	TATAACCT	TATAACCT	AGGTTATA
UDI0013	CCAAGTCT	CCAAGTCT	AAGGATGA	AAGGATGA	TCATCCTT
UDI0014	TTGGACTC	TTGGACTC	GGAAGCAG	GGAAGCAG	CTGCTTCC
UDI0015V2	CAGTAGGC	CAGTAGGC	TGACGAAT	TGACGAAT	ATTCGTCA
UDI0015	GGCTTAAG	GGCTTAAG	TCGTGACC	TCGTGACC	GGTCACGA
UDI0016V2	TGACGAAT	TGACGAAT	CAGTAGGC	CAGTAGGC	GCCTACTG
UDI0016	AATCCGGA	AATCCGGA	CTACAGTT	CTACAGTT	AACTGTAG
UDI0017	TAATACAG	TAATACAG	ATATTCAC	ATATTCAC	GTGAATAT
UDI0018	CGGCGTGA	CGGCGTGA	GCGCCTGT	GCGCCTGT	ACAGGCGC
UDI0019	ATGTAAGT	ATGTAAGT	ACTCTATG	ACTCTATG	CATAGAGT
UDI0020	GCACGGAC	GCACGGAC	GTCTCGCA	GTCTCGCA	TGCGAGAC
UDI0021	GGTACCTT	GGTACCTT	AAGACGTC	AAGACGTC	GACGTCTT
UDI0022	AACGTTCC	AACGTTCC	GGAGTACT	GGAGTACT	AGTACTCC
UDI0023	GCAGAATT	GCAGAATT	ACCGGCCA	ACCGGCCA	TGGCCGGT
UDI0024	ATGAGGCC	ATGAGGCC	GTTAATTG	GTTAATTG	CAATTAAC
UDI0025	ACTAAGAT	ACTAAGAT	AACCGCGG	AACCGCGG	CCGCGGTT
UDI0026	GTCGGAGC	GTCGGAGC	GGTTATAA	GGTTATAA	TTATAACC

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDI0027	CTTGGTAT	CTTGGTAT	CCAAGTCC	CCAAGTCC	GGACTTGG
UDI0028	TCCAACGC	TCCAACGC	TTGGACTT	TTGGACTT	AAGTCCAA
UDI0029	CCGTGAAG	CCGTGAAG	CAGTGGAT	CAGTGGAT	ATCCACTG
UDI0030	TTACAGGA	TTACAGGA	TGACAAGC	TGACAAGC	GCTTGTCA
UDI0031	GGCATTCT	GGCATTCT	CTAGCTTG	CTAGCTTG	CAAGCTAG
UDI0032	AATGCCTC	AATGCCTC	TCGATCCA	TCGATCCA	TGGATCGA
UDI0033	TACCGAGG	TACCGAGG	CCTGAACT	CCTGAACT	AGTTCAGG
UDI0034	CGTTAGAA	CGTTAGAA	TTCAGGTC	TTCAGGTC	GACCTGAA
UDI0035	AGCCTCAT	AGCCTCAT	AGTAGAGA	AGTAGAGA	TCTCTACT
UDI0036	GATTCTGC	GATTCTGC	GACGAGAG	GACGAGAG	CTCTCGTC
UDI0037	TCGTAGTG	TCGTAGTG	AGACTTGG	AGACTTGG	CCAAGTCT
UDI0038	CTACGACA	CTACGACA	GAGTCCAA	GAGTCCAA	TTGGACTC
UDI0039	TAAGTGGT	TAAGTGGT	CTTAAGCC	CTTAAGCC	GGCTTAAG
UDI0040	CGGACAAC	CGGACAAC	TCCGGATT	TCCGGATT	AATCCGGA
UDI0041	ATATGGAT	ATATGGAT	CTGTATTA	CTGTATTA	TAATACAG
UDI0042	GCGCAAGC	GCGCAAGC	TCACGCCG	TCACGCCG	CGGCGTGA
UDI0043	AAGATACT	AAGATACT	ACTTACAT	ACTTACAT	ATGTAAGT
UDI0044	GGAGCGTC	GGAGCGTC	GTCCGTGC	GTCCGTGC	GCACGGAC
UDI0045	ATGGCATG	ATGGCATG	AAGGTACC	AAGGTACC	GGTACCTT
UDI0046	GCAATGCA	GCAATGCA	GGAACGTT	GGAACGTT	AACGTTCC
UDI0047	GTTCCAAT	GTTCCAAT	AATTCTGC	AATTCTGC	GCAGAATT
UDI0048	ACCTTGGC	ACCTTGGC	GGCCTCAT	GGCCTCAT	ATGAGGCC
UDI0049	ATATCTCG	ATATCTCG	ATCTTAGT	ATCTTAGT	ACTAAGAT
UDI0050	GCGCTCTA	GCGCTCTA	GCTCCGAC	GCTCCGAC	GTCGGAGC
UDI0051	AACAGGTT	AACAGGTT	ATACCAAG	ATACCAAG	CTTGGTAT
UDI0052	GGTGAACC	GGTGAACC	GCGTTGGA	GCGTTGGA	TCCAACGC
UDI0053	CAACAATG	CAACAATG	CTTCACGG	CTTCACGG	CCGTGAAG

Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDI0054	TGGTGGCA	TGGTGGCA	TCCTGTAA	TCCTGTAA	TTACAGGA
UDI0055V2	GTTCGCCG	GTTCGCCG	GCTCATTG	GCTCATTG	CAATGAGC
UDI0055	AGGCAGAG	AGGCAGAG	AGAATGCC	AGAATGCC	GGCATTCT
UDI0056V2	CACGAGCG	CACGAGCG	ATCTGCCA	ATCTGCCA	TGGCAGAT
UDI0056	GAATGAGA	GAATGAGA	GAGGCATT	GAGGCATT	AATGCCTC
UDI0057	TGCGGCGT	TGCGGCGT	CCTCGGTA	CCTCGGTA	TACCGAGG
UDI0058	CATAATAC	CATAATAC	TTCTAACG	TTCTAACG	CGTTAGAA
UDI0059	GATCTATC	GATCTATC	ATGAGGCT	ATGAGGCT	AGCCTCAT
UDI0060	AGCTCGCT	AGCTCGCT	GCAGAATC	GCAGAATC	GATTCTGC
UDI0061	CGGAACTG	CGGAACTG	CACTACGA	CACTACGA	TCGTAGTG
UDI0062	TAAGGTCA	TAAGGTCA	TGTCGTAG	TGTCGTAG	CTACGACA
UDI0063	TTGCCTAG	TTGCCTAG	ACCACTTA	ACCACTTA	TAAGTGGT
UDI0064	CCATTCGA	CCATTCGA	GTTGTCCG	GTTGTCCG	CGGACAAC
UDI0065	ACACTAAG	ACACTAAG	ATCCATAT	ATCCATAT	ATATGGAT
UDI0066	GTGTCGGA	GTGTCGGA	GCTTGCGC	GCTTGCGC	GCGCAAGC
UDI0067	TTCCTGTT	TTCCTGTT	AGTATCTT	AGTATCTT	AAGATACT
UDI0068	CCTTCACC	CCTTCACC	GACGCTCC	GACGCTCC	GGAGCGTC
UDI0069	GCCACAGG	GCCACAGG	CATGCCAT	CATGCCAT	ATGGCATG
UDI0070	ATTGTGAA	ATTGTGAA	TGCATTGC	TGCATTGC	GCAATGCA
UDI0071	ACTCGTGT	ACTCGTGT	ATTGGAAC	ATTGGAAC	GTTCCAAT
UDI0072	GTCTACAC	GTCTACAC	GCCAAGGT	GCCAAGGT	ACCTTGGC
UDI0073	CAATTAAC	CAATTAAC	CGAGATAT	CGAGATAT	ATATCTCG
UDI0074	TGGCCGGT	TGGCCGGT	TAGAGCGC	TAGAGCGC	GCGCTCTA
UDI0075	AGTACTCC	AGTACTCC	AACCTGTT	AACCTGTT	AACAGGTT
UDI0076	GACGTCTT	GACGTCTT	GGTTCACC	GGTTCACC	GGTGAACC
UDI0077	TGCGAGAC	TGCGAGAC	CATTGTTG	CATTGTTG	CAACAATG
UDI0078	CATAGAGT	CATAGAGT	TGCCACCA	TGCCACCA	TGGTGGCA

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Index Name	i7 Bases in Adapter	i7 Bases for Sample Sheet	i5 Bases in Adapter	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
UDI0079	ACAGGCGC	ACAGGCGC	CTCTGCCT	CTCTGCCT	AGGCAGAG
UDI0080	GTGAATAT	GTGAATAT	TCTCATTC	TCTCATTC	GAATGAGA
UDI0081	AACTGTAG	AACTGTAG	ACGCCGCA	ACGCCGCA	TGCGGCGT
UDI0082	GGTCACGA	GGTCACGA	GTATTATG	GTATTATG	CATAATAC
UDI0083	CTGCTTCC	CTGCTTCC	GATAGATC	GATAGATC	GATCTATC
UDI0084	TCATCCTT	TCATCCTT	AGCGAGCT	AGCGAGCT	AGCTCGCT
UDI0085	AGGTTATA	AGGTTATA	CAGTTCCG	CAGTTCCG	CGGAACTG
UDI0086	GAACCGCG	GAACCGCG	TGACCTTA	TGACCTTA	TAAGGTCA
UDI0087	CTCACCAA	CTCACCAA	CTAGGCAA	CTAGGCAA	TTGCCTAG
UDI0088	TCTGTTGG	TCTGTTGG	TCGAATGG	TCGAATGG	CCATTCGA
UDI0089	TATCGCAC	TATCGCAC	CTTAGTGT	CTTAGTGT	ACACTAAG
UDI0090	CGCTATGT	CGCTATGT	TCCGACAC	TCCGACAC	GTGTCGGA
UDI0091	GTATGTTC	GTATGTTC	AACAGGAA	AACAGGAA	TTCCTGTT
UDI0092	ACGCACCT	ACGCACCT	GGTGAAGG	GGTGAAGG	CCTTCACC
UDI0093	TACTCATA	TACTCATA	CCTGTGGC	CCTGTGGC	GCCACAGG
UDI0094	CGTCTGCG	CGTCTGCG	TTCACAAT	TTCACAAT	ATTGTGAA
UDI0095	TCGATATC	TCGATATC	ACACGAGT	ACACGAGT	ACTCGTGT
UDI0096	CTAGCGCT	CTAGCGCT	GTGTAGAC	GTGTAGAC	GTCTACAC

TruSeq DNA and RNA CD Indexes

Combinatorial dual (CD) index adapters (formerly TruSeq HT).

A-tailing is performed before adapter ligation. For example, the additional A base is in parentheses in the i7 adapter, as follows.

Index 1 (i7) Adapters

(A)GATCGGAAGAGCACACGTCTGAACTCCAGTCAC[i7]ATCTCGTATGCCGTCTTCTGCTTG

Adapter Trimming

The following sequences are used for adapter trimming.

Read 1

AGATCGGAAGAGCACACGTCTGAACTCCAGTCA

Read 2

AGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT

Index 1 (i7) Adapters

GATCGGAAGAGCACACGTCTGAACTCCAGTCAC[i7]ATCTCGTATGCCGTCTTCTGCTTG

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

Index 2 (i5) Adapters

AATGATACGGCGACCACCGAGATCTACAC[i5]ACACTCTTTCCCTACACGACGCTCTTCCGATCT

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

i5 Index Name	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
D501	TATAGCCT	AGGCTATA
D502	ATAGAGGC	GCCTCTAT
D503	CCTATCCT	AGGATAGG
D504	GGCTCTGA	TCAGAGCC

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i5 Index Name	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
D505	AGGCGAAG	CTTCGCCT
D506	TAATCTTA	TAAGATTA
D507	CAGGACGT	ACGTCCTG
D508	GTACTGAC	GTCAGTAC

TruSeq Single Indexes

A-tailing is performed before adapter ligation. For example, the additional A base is in parentheses in the i7 adapter, as follows.

Index 1 (i7) Adapters

(A)GATCGGAAGAGCACACGTCTGAACTCCAGTCAC[i7]ATCTCGTATGCCGTCTTCTGCTTG

Adapter Trimming

The following sequences are used for adapter trimming.

Read 1

AGATCGGAAGAGCACACGTCTGAACTCCAGTCA

Read 2

AGATCGGAAGAGCGTCGTGTAGGGAAAGAGTGT

TruSeq Universal Adapter

5′ AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTTCCGATCT

DNA and RNA Index Adapters

Index adapter sequences are six bases as underlined. Enter the six underlined bases in the sample sheet.

The index numbering is not sequential, so indexes 17, 24, and 26 are skipped. Additionally, the bases preceding each index adapter sequence are the same, but the two bases following the index adapter sequence can vary.

Index Adapter 1

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCAC<u>ATCACG</u>ATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 2

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCAC<u>CGATGT</u>ATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 3

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5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACTTAGGCATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 4

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACTGACCAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 5

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACACAGTGATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 6

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGCCAATATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 7

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACCAGATCATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 8

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACACTTGAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 9

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGATCAGATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 10

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACTAGCTTATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 11

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGGCTACATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 12

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACCTTGTAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 13

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACAGTCAACAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 14

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACAGTTCCGTATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 15

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACATGTCAGAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 16

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACCCGTCCCGATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 18

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGTCCGCACATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 19

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGTGAAACGATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 20

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGTGGCCTTATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 21

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGTTTCGGAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 22

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACCGTACGTAATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 23

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACGAGTGGATATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 25

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACACTGATATATCTCGTATGCCGTCTTCTGCTTG

Index Adapter 27

5′ GATCGGAAGAGCACACGTCTGAACTCCAGTCACATTCCTTTATCTCGTATGCCGTCTTCTGCTTG

TruSeq Amplicon Kits

The TruSeq Amplicon Kits include the following:

- TruSeq Custom Amplicon v1.5
- TruSeq Amplicon Cancer Panel
- 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
A705	ACCCAGCA
A706	AACCCCTC
A707	CCCAACCT
A708	CACCACAC
A709	GAAACCCA
A710	TGTGACCA
A711	AGGGTCAA
A712	AGGAGTGG

Index 2 (i5) Adapters

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

i5 Index Name	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
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 Small RNA

Adapter Trimming

The following sequence is used for adapter trimming.

TGGAATTCTCGGGTGCCAAGG

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

```
5′ CAAGCAGAAGACGGCATACGAGAT[6 bases]GTGACTGGAGTTCCTTGGCACCCGAGAATTCCA
```

Index Adapters

Index Name	Six-Base Sequence in Adapter	Six-Base Sequence for Sample Sheet
Index 1 (RPI1)	CGTGAT	ATCACG
Index 2 (RPI2)	ACATCG	CGATGT
Index 3 (RPI3)	GCCTAA	TTAGGC
Index 4 (RPI4)	TGGTCA	TGACCA
Index 5 (RPI5)	CACTGT	ACAGTG
Index 6 (RPI6)	ATTGGC	GCCAAT
Index 7 (RPI7)	GATCTG	CAGATC
Index 8 (RPI8)	TCAAGT	ACTTGA
Index 9 (RPI9)	CTGATC	GATCAG
Index 10 (RPI10)	AAGCTA	TAGCTT
Index 11 (RPI11)	GTAGCC	GGCTAC
Index 12 (RPI12)	TACAAG	CTTGTA
Index 13 (RPI13)	TTGACT	AGTCAA
Index 14 (RPI14)	GGAACT	AGTTCC
Index 15 (RPI15)	TGACAT	ATGTCA
Index 16 (RPI16)	GGACGG	CCGTCC
Index 17 (RPI17)	CTCTAC	GTAGAG
Index 18 (RPI18)	GCGGAC	GTCCGC
Index 19 (RPI19)	TTTCAC	GTGAAA
Index 20 (RPI20)	GGCCAC	GTGGCC
Index 21 (RPI21)	CGAAAC	GTTTCG
Index 22 (RPI22)	CGTACG	CGTACG
Index 23 (RPI23)	CCACTC	GAGTGG
Index 24 (RPI24)	GCTACC	GGTAGC
Index 25 (RPI25)	ATCAGT	ACTGAT
Index 26 (RPI26)	GCTCAT	ATGAGC

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Index Name	Six-Base Sequence in Adapter	Six-Base Sequence for Sample Sheet
Index 27 (RPI27)	AGGAAT	ATTCCT
Index 28 (RPI28)	CTTTTG	CAAAAG
Index 29 (RPI29)	TAGTTG	CAACTA
Index 30 (RPI30)	CCGGTG	CACCGG
Index 31 (RPI31)	ATCGTG	CACGAT
Index 32 (RPI32)	TGAGTG	CACTCA
Index 33 (RPI33)	CGCCTG	CAGGCG
Index 34 (RPI34)	GCCATG	CATGGC
Index 35 (RPI35)	AAAATG	CATTTT
Index 36 (RPI36)	TGTTGG	CCAACA
Index 37 (RPI37)	ATTCCG	CGGAAT
Index 38 (RPI38)	AGCTAG	CTAGCT
Index 39 (RPI39)	GTATAG	CTATAC
Index 40 (RPI40)	TCTGAG	CTCAGA
Index 41 (RPI41)	GTCGTC	GACGAC
Index 42 (RPI42)	CGATTA	TAATCG
Index 43 (RPI43)	GCTGTA	TACAGC
Index 44 (RPI44)	ATTATA	TATAAT
Index 45 (RPI45)	GAATGA	TCATTC
Index 46 (RPI46)	TCGGGA	TCCCGA
Index 47 (RPI47)	CTTCGA	TCGAAG
Index 48 (RPI48)	TGCCGA	TCGGCA

TruSeq Targeted RNA Expression

Index 1 (i7) Adapters

i7 Index Name	i7 Bases for Sample Sheet
R701	ATCACG
R702	CGATGT
R703	TTAGGC

i7 Index Name	i7 Bases for Sample Sheet
R704	TGACCA
R705	ACAGTG
R706	GCCAAT
R707	CAGATC
R708	ACTTGA
R709	GATCAG
R710	TAGCTT
R711	GGCTAC
R712	CTTGTA
R713	AGTCAA
R714	AGTTCC
R715	ATGTCA
R716	CCGTCC
R717	GTAGAG
R718	GTCCGC
R719	GTGAAA
R720	GTGGCC
R721	GTTTCG
R722	CGTACG
R723	GAGTGG
R724	GGTAGC
R725	ACTGAT
R726	ATGAGC
R727	ATTCCT
R728	CAAAAG
R729	CAACTA
R730	CACCGG
R731	CACGAT
R732	CACTCA
R733	CAGGCG

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i7 Index Name	i7 Bases for Sample Sheet
R734	CATGGC
R735	CATTTT
R736	CCAACA
R737	CGGAAT
R738	CTAGCT
R739	CTATAC
R740	CTCAGA
R741	GACGAC
R742	TAATCG
R743	TACAGC
R744	TATAAT
R745	TCATTC
R746	TCCCGA
R747	TCGAAG
R748	TCGGCA

Index 2 (i5) Adapters

Refer to *Index 2 (i5) Orientation* on page 1 for more information on how to enter i5 bases on the sample sheet in forward or reverse complement orientation.

i5 Index Name	i5 Bases for Sample Sheet in Forward Orientation	i5 Bases for Sample Sheet in Reverse Complement Orientation
A501	TGAACCTT	AAGGTTCA
A502	TGCTAAGT	ACTTAGCA
A503	TGTTCTCT	AGAGAACA
A504	TAAGACAC	GTGTCTTA
A505	CTAATCGA	TCGATTAG
A506	CTAGAACA	TGTTCTAG
A507	TAAGTTCC	GGAACTTA
A508	TAGACCTA	TAGGTCTA

Process Controls for TruSeq Kits

TruSeq DNA PCR-Free, TruSeq Nano DNA, TruSeq RNA (v2/LT/HT), and TruSeq Exome kits include the following process controls.

Current versions of Sequencing Analysis Viewer (SAV) do not show metrics for control sequences.

CTE2 - 150bp

```
ATCCTGCAGATGCATCCAGTACTAGTATGGCCCGGGGGATCCTACGTTCCAAATGCAGCGAGCTCGTATAACCCTTTAAGAGTT
GCTCTTTTTGTTTGGTAAGTTGCAAATCGAAGTTTTAGATTGAGTTCTACGTCGAGCGGCCGCGAT
```

CTE2 - 250bp

```
ATCCTGCAGATGCATCCAGTACTAGTATGGCCCGGGGGATCCTTATCTGTCAAAACCGCTAATGTCCGTTCTAAGACCGTCTGG
AGAACACTTGCCCATCAGTGCTTTTGAACCTTTTTTTCACAGGTCCCTTCCGATTACACTGAGAAGCTGACCACACCTGCTAGA
AGATGGAGGTATGCAGCCCGTTAGTAGGAGTAATACTACCCAGCTTATAACCCTCAAACGTAGGGCAGATGGCGGCCGCGAT
```

CTE2 - 350bp

```
ATCCTGCAGATGCATCCAGTACTAGTATGGCCCGGGGGATCCTAGAGACCATTCGCGATTCCATGAGACTCCAAGGGTTCTGCA
CAACTTATGCACCTCTATTAGATCATTGTGTTCTACGAAGCCTGGACTGCATTACATATTCACAACCAACATGAGAAGAGCGGA
ATAGATGGCCGGATGTTTGGTGGCTTTGATATATTGTGAGGAGCATTGCGAACCCTAGAGCTGTCCGGTCAAATAACCCCCTCA
CAATAAGTGTAATGTCATGGGATAATCAAAAGACTAAGGGAGGGCTTTTATAGAAGGCGTGAGGTCATGCTATCCCCCTCTGAA
GACGCGGCCGCGAT
```

CTE2 - 450bp

```
ATCCTGCAGATGCATCCAGTACTAGTATGGCCCGGGGGATCCGTATACGTTTCTAATTTGTAGTTAACGGTTGGATACCACTTT
GAGGCATGTAATATGGTACTGAGCTTCGGCACAGGGCTCAAATTGCATCATTAAATGTCTCCGATGTGGCTATATGTCATGGAT
AAAGGCAGCCCCCTATATCTTTTTTTGTGGCAGCATGGGTCCATCAAAGCAATTATTCAGGGTCTTAATGACCTCCACAGCTCT
AAACGTAATTCATCTGGCTTTGCCTGTACTTACTTCCTCCATGAAAAAAAGTGTTGATAATGCTCATAATGCTGCCCAGCAATT
TCCTCCCTTCTCAAGACTATTCTGGCTTCCTGGGTACTTAAAAACAGGGCTTAGAGTATGGCTGCTGACAAAATTGCACTCTAA
ACGCTAGCTTAGGTCTTCTGCGGCCGCGAT
```


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CTE2 - 550bp

```
ATCCTGCAGATGCATCCAGTACTAGTATGGCCCGGGGGATCCGTTAGCTATCGTTCGCGAGAAAGTTAGTAGACACACAGGACC
CAGGCGTGCAAGTCAATTTCAGCTGACTACACCGATTCTGGTTAAAAGAGCCTATGGCCACCCTTATTTTAGAGAAAAAAAACC
ACACCTCTAATGTGTTGGGCACTAGAAAAAGCTAACTACCTAGTCCGTTTCTGGACGACTTCATTGGGAATAACATACCCCCCA
CTGTGATTAAGACTGGCACTGTCCTAATGCTTTCTTCAATAGGTTTGGCTCATGTGTGATTCCCTCTGGCAAACTTATAGAGGA
CAAGCAGAATAAACCAATTCAAGGTCGTTGTAGCTGAAGGCCTGGCCTGCCTGACAGTTAATTATGAGCATGTCTTGCCCTTCA
TGGTGGATATTCACAGCTGAAAGTGGTATTGGCATTTTTTTCTGAGGACACAACGAGGAAATCTGATAAATACGGCCACCTGAA
GTCTAGCTCGGAGTTAACAATTTACCACGTTTAGAGCGGCCGCGAT
```

CTE2 - 650bp

```
ATCCTGCAGATGCATCCAGTACTAGTATGGCCCGGGGGATCCGCTCGCACTTAGCCTGTTAAGGGGTTCGCGCTCGTCTAGTCT
GTGCTGTTGCCTGGATAGTAAATTATCATGGTACAAACTTTTAAGAGCCAGTTAAATGGAGATGGATTTAAAAAGAGTTATTGT
AAAGTCTCCCCAGGTGTGTCATTAAATATCCCAACAGATTGCCCTGGCCTGACCCCCTAAATGCAATTTTGGGATTCCCTTTTA
GTTGCTTTCATTAAAATGTACCAGCGCAGTAAAAAAAGCACAAAGTATATTGTTTATGTAACTCACTATCTCATTTGCACTGGT
TACATGGCAGCTTCAGACTGACTAAAACTACACTTTTCCCACCATGGTTCAAAGATCAACAGAACTGGGCCAACAAAAGCAATT
TTTTCATGTGGTCTAACTACCAACTTATTATGAGTTAAGTTACTTTTAGGTTTAAAATCACAGCAGTTTTTCCCTCCACACCTC
CCAGAGATACTTTCAGGGTGGCTAAACTTGGCTAAAGGCTTCCGGACCAACCCTTGTTTCTTTATGGTGCTTGTGTCCTGACAA
CCGCGTAAGGCATGGAAATTCAGCTATTTATCCGATCGTTTATATGGGCGTGCGGCCGCGAT
```

CTE2 - 750bp

```
ATCCTGCAGATGCATCCAGTACTAGTATGGCCCGGGGGATCCTTGGACCGTTAATTCATATATCGAAGTAGCAGGTTGTTGCCC
CGCCTGATGTTGCCACTACTTGCTCATGACAGTTTTTTTAGGCAATGCAAACTACTATTTGATATTTTTTTCCAAGTACAGTTG
TAGGGTACTCCTTATACTGATTCTTCTGAGCCTGTACGGGGAGCATTAGGTACTGATGTAGTAGGAGTTGAGCTTCACAAATTC
ACCAGGTAAGCCCAAATTTATTTTCTGCTTGGACAGGTCCACCTCACATGGGTCTGTCTAATATATTAAAAGAGGGATTTTCTT
TGCTGTATTGCAGCCCAGTATATCTGTTACTTACAGTAGTAGTCCATTATTGCTGGCCTAGGGGCTTTTGCTCCTACACGAACA
CCACTCTGTAAAATTTGAGGTCGTCCTTAGAGTCAAACCATTCATGGAGCGCTCTGTGCATCTACCAACTATCGCTAAGCATTC
ACTTGGTTGGTTTAAGTGGAGGCAACTCCATTATCTTCTAGCATACCCTTCCCAGGCTACATGTAGAAAGAGATCTGTTGGGCC
CCACTATTTTTTCACCCAGGGAAGCCTACTTTAGTTATAGCTTGCCAGAGATTTTCTGTGTCATGTAGAAGTCATCCACTTTTA
ACACCAGGAGGTGGATGTGGGGCCAGGAAATATGTCAATAACGATACGGGACTTCTAACAGTGACTCGCGGCCGCGAT
```


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CTE2 - 850bp

```
ATCCTGCAGATGCATCCAGTACTAGTATGGCCCGGGGGATCCTTAAGTCGTGTCCTTCTCCTACGATCTTGTGAACGATGGATA
TTTTCTTTCTAAACTTTAAACAAACAGTGGAGAGATGTTGTTGTGTGTGGAACGACGCTTAGCCTACCGAGGAAGATCCAGACT
ACAATAGAATATGTGGCCAAAACTCTCCGCAACTTCAGCAGCAAAAAGGATATTATTGACATAACCTCCTCACAAAAAGTACAC
AAATGGCTAAATAACAGAGCCCCTCTTTTTACTAGGGAAATGGTGGATGTGGACTTTAGAATTTAAGATAATAAAGCTCTTGAT
CCCAATGTTATTTCCATGTGAGGGACATTAAATTGAGTAACCTTTGCCACATACCCTCTCCCAGAGTCCATTCTCTAAAACTTG
AAGCTCCGCCCCTTTTTACGCACATTAGGCTTCCAATTACGGTCAATGGTCTTGAAGATTGGGAGCTTTTGAAGAGTAATAAGA
ACCATCACAAAAAGGAACCCAGAAGCCGGGAGTGTCTACCAAAAAAATTCAAGGGTTAAAAAAAAGTGACATTTTCTCCTGTTT
TTTACACATGATTTTGAATGCTGATGGGTCCACGTCCAGCTCTAAAGGTAGGTTCATGGTTCTCCAAAGTTGCTTTCTTGTCAG
AATTGAGCCACATCAGGTAGGTGGGGAAGTAGATCAGTGAGGATGCTTCACATGTGTGGGCACTGGGAACAGAATGCTTCAATA
ACACGAGCTGACGAGGGCCCGCTATGAAAAAAAAGATTCTCTGTGCCCCCTGGCGCCTCCGCACTTAAAGAATTGATGACCGTG
CGGCCGCGAT
```

CTE1 - 123bp

```
GATCCTACGTTCCAAATGCAGCGAGCTCGTATAACCCTTTAAGAGTTGCTCTTTTTGTTTGGTAAGTTGCAAATCGAAGTTTTA
GATTGAGTTCTACGTCGAGCGGCCGCGATATCCTGCAGATGCA
```

CTE1 - 223bp

```
GATCCTTATCTGTCAAAACCGCTAATGTCCGTTCTAAGACCGTCTGGAGAACACTTGCCCATCAGTGCTTTTGAACCTTTTTTT
CACAGGTCCCTTCCGATTACACTGAGAAGCTGACCACACCTGCTAGAAGATGGAGGTATGCAGCCCGTTAGTAGGAGTAATACT
ACCCAGCTTATAACCCTCAAACGTAGGGCAGATGGCGGCCGCGATATCCTGCAGATGCA
```

CTE1 - 323bp

```
GATCCTAGAGACCATTCGCGATTCCATGAGACTCCAAGGGTTCTGCACAACTTATGCACCTCTATTAGATCATTGTGTTCTACG
AAGCCTGGACTGCATTACATATTCACAACCAACATGAGAAGAGCGGAATAGATGGCCGGATGTTTGGTGGCTTTGATATATTGT
GAGGAGCATTGCGAACCCTAGAGCTGTCCGGTCAAATAACCCCCTCACAATAAGTGTAATGTCATGGGATAATCAAAAGACTAA
GGGAGGGCTTTTATAGAAGGCGTGAGGTCATGCTATCCCCCTCTGAAGACGCGGCCGCGATATCCTGCAGATGCA
```


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CTE1 - 423bp

```
GATCCGTATACGTTTCTAATTTGTAGTTAACGGTTGGATACCACTTTGAGGCATGTAATATGGTACTGAGCTTCGGCACAGGGC
TCAAATTGCATCATTAAATGTCTCCGATGTGGCTATATGTCATGGATAAAGGCAGCCCCCTATATCTTTTTTTGTGGCAGCATG
GGTCCATCAAAGCAATTATTCAGGGTCTTAATGACCTCCACAGCTCTAAACGTAATTCATCTGGCTTTGCCTGTACTTACTTCC
TCCATGAAAAAAAGTGTTGATAATGCTCATAATGCTGCCCAGCAATTTCCTCCCTTCTCAAGACTATTCTGGCTTCCTGGGTAC
TTAAAAACAGGGCTTAGAGTATGGCTGCTGACAAAATTGCACTCTAAACGCTAGCTTAGGTCTTCTGCGGCCGCGATATCCTGC
AGATGCA
```

CTE1 - 523bp

```
GATCCGTTAGCTATCGTTCGCGAGAAAGTTAGTAGACACACAGGACCCAGGCGTGCAAGTCAATTTCAGCTGACTACACCGATT
CTGGTTAAAAGAGCCTATGGCCACCCTTATTTTAGAGAAAAAAAACCACACCTCTAATGTGTTGGGCACTAGAAAAAGCTAACT
ACCTAGTCCGTTTCTGGACGACTTCATTGGGAATAACATACCCCCCACTGTGATTAAGACTGGCACTGTCCTAATGCTTTCTTC
AATAGGTTTGGCTCATGTGTGATTCCCTCTGGCAAACTTATAGAGGACAAGCAGAATAAACCAATTCAAGGTCGTTGTAGCTGA
AGGCCTGGCCTGCCTGACAGTTAATTATGAGCATGTCTTGCCCTTCATGGTGGATATTCACAGCTGAAAGTGGTATTGGCATTT
TTTTCTGAGGACACAACGAGGAAATCTGATAAATACGGCCACCTGAAGTCTAGCTCGGAGTTAACAATTTACCACGTTTAGAGC
GGCCGCGATATCCTGCAGATGCA
```

CTE1 - 623bp

```
GATCCGCTCGCACTTAGCCTGTTAAGGGGTTCGCGCTCGTCTAGTCTGTGCTGTTGCCTGGATAGTAAATTATCATGGTACAAA
CTTTTAAGAGCCAGTTAAATGGAGATGGATTTAAAAAGAGTTATTGTAAAGTCTCCCCAGGTGTGTCATTAAATATCCCAACAG
ATTGCCCTGGCCTGACCCCCTAAATGCAATTTTGGGATTCCCTTTTAGTTGCTTTCATTAAAATGTACCAGCGCAGTAAAAAAA
GCACAAAGTATATTGTTTATGTAACTCACTATCTCATTTGCACTGGTTACATGGCAGCTTCAGACTGACTAAAACTACACTTTT
CCCACCATGGTTCAAAGATCAACAGAACTGGGCCAACAAAAGCAATTTTTTCATGTGGTCTAACTACCAACTTATTATGAGTTA
AGTTACTTTTAGGTTTAAAATCACAGCAGTTTTTCCCTCCACACCTCCCAGAGATACTTTCAGGGTGGCTAAACTTGGCTAAAG
GCTTCCGGACCAACCCTTGTTTCTTTATGGTGCTTGTGTCCTGACAACCGCGTAAGGCATGGAAATTCAGCTATTTATCCGATC
GTTTATATGGGCGTGCGGCCGCGATATCCTGCAGATGCA
```

CTE1 - 723bp

```
GATCCTTGGACCGTTAATTCATATATCGAAGTAGCAGGTTGTTGCCCCGCCTGATGTTGCCACTACTTGCTCATGACAGTTTTT
TTAGGCAATGCAAACTACTATTTGATATTTTTTTCCAAGTACAGTTGTAGGGTACTCCTTATACTGATTCTTCTGAGCCTGTAC
GGGGAGCATTAGGTACTGATGTAGTAGGAGTTGAGCTTCACAAATTCACCAGGTAAGCCCAAATTTATTTTCTGCTTGGACAGG
TCCACCTCACATGGGTCTGTCTAATATATTAAAAGAGGGATTTTCTTTGCTGTATTGCAGCCCAGTATATCTGTTACTTACAGT
AGTAGTCCATTATTGCTGGCCTAGGGGCTTTTGCTCCTACACGAACACCACTCTGTAAAATTTGAGGTCGTCCTTAGAGTCAAA
CCATTCATGGAGCGCTCTGTGCATCTACCAACTATCGCTAAGCATTCACTTGGTTGGTTTAAGTGGAGGCAACTCCATTATCTT
CTAGCATACCCTTCCCAGGCTACATGTAGAAAGAGATCTGTTGGGCCCCACTATTTTTTCACCCAGGGAAGCCTACTTTAGTTA
TAGCTTGCCAGAGATTTTCTGTGTCATGTAGAAGTCATCCACTTTTAACACCAGGAGGTGGATGTGGGGCCAGGAAATATGTCA
ATAACGATACGGGACTTCTAACAGTGACTCGCGGCCGCGATATCCTGCAGATGCA
```


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CTE1 - 823bp

```
GATCCTTAAGTCGTGTCCTTCTCCTACGATCTTGTGAACGATGGATATTTTCTTTCTAAACTTTAAACAAACAGTGGAGAGATG
TTGTTGTGTGTGGAACGACGCTTAGCCTACCGAGGAAGATCCAGACTACAATAGAATATGTGGCCAAAACTCTCCGCAACTTCA
GCAGCAAAAAGGATATTATTGACATAACCTCCTCACAAAAAGTACACAAATGGCTAAATAACAGAGCCCCTCTTTTTACTAGGG
AAATGGTGGATGTGGACTTTAGAATTTAAGATAATAAAGCTCTTGATCCCAATGTTATTTCCATGTGAGGGACATTAAATTGAG
TAACCTTTGCCACATACCCTCTCCCAGAGTCCATTCTCTAAAACTTGAAGCTCCGCCCCTTTTTACGCACATTAGGCTTCCAAT
TACGGTCAATGGTCTTGAAGATTGGGAGCTTTTGAAGAGTAATAAGAACCATCACAAAAAGGAACCCAGAAGCCGGGAGTGTCT
ACCAAAAAAATTCAAGGGTTAAAAAAAAGTGACATTTTCTCCTGTTTTTTACACATGATTTTGAATGCTGATGGGTCCACGTCC
AGCTCTAAAGGTAGGTTCATGGTTCTCCAAAGTTGCTTTCTTGTCAGAATTGAGCCACATCAGGTAGGTGGGGAAGTAGATCAG
TGAGGATGCTTCACATGTGTGGGCACTGGGAACAGAATGCTTCAATAACACGAGCTGACGAGGGCCCGCTATGAAAAAAAAGAT
TCTCTGTGCCCCCTGGCGCCTCCGCACTTAAAGAATTGATGACCGTGCGGCCGCGATATCCTGCAGATGCA
```

CTA - 150bp

```
GGGGGATCCTACGTTCCAAATGCAGCGAGCTCGTATAACCCTTTAAGAGTTGCTCTTTTTGTTTGGTAAGTTGCAAATCGAAGT
TTTAGATTGAGTTCTACGTCGAGCGGCCGCGATATCCTGCAGATGCATCCAGTACTAGTATGGCCC
```

CTA - 250bp

```
GGGGGATCCTTATCTGTCAAAACCGCTAATGTCCGTTCTAAGACCGTCTGGAGAACACTTGCCCATCAGTGCTTTTGAACCTTT
TTTTCACAGGTCCCTTCCGATTACACTGAGAAGCTGACCACACCTGCTAGAAGATGGAGGTATGCAGCCCGTTAGTAGGAGTAA
TACTACCCAGCTTATAACCCTCAAACGTAGGGCAGATGGCGGCCGCGATATCCTGCAGATGCATCCAGTACTAGTATGGCCC
```

CTA - 350bp

```
GGGGGATCCTAGAGACCATTCGCGATTCCATGAGACTCCAAGGGTTCTGCACAACTTATGCACCTCTATTAGATCATTGTGTTC
TACGAAGCCTGGACTGCATTACATATTCACAACCAACATGAGAAGAGCGGAATAGATGGCCGGATGTTTGGTGGCTTTGATATA
TTGTGAGGAGCATTGCGAACCCTAGAGCTGTCCGGTCAAATAACCCCCTCACAATAAGTGTAATGTCATGGGATAATCAAAAGA
CTAAGGGAGGGCTTTTATAGAAGGCGTGAGGTCATGCTATCCCCCTCTGAAGACGCGGCCGCGATATCCTGCAGATGCATCCAG
TACTAGTATGGCCC
```


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CTA - 450bp

```
GGGGGATCCGTATACGTTTCTAATTTGTAGTTAACGGTTGGATACCACTTTGAGGCATGTAATATGGTACTGAGCTTCGGCACA
GGGCTCAAATTGCATCATTAAATGTCTCCGATGTGGCTATATGTCATGGATAAAGGCAGCCCCCTATATCTTTTTTTGTGGCAG
CATGGGTCCATCAAAGCAATTATTCAGGGTCTTAATGACCTCCACAGCTCTAAACGTAATTCATCTGGCTTTGCCTGTACTTAC
TTCCTCCATGAAAAAAAGTGTTGATAATGCTCATAATGCTGCCCAGCAATTTCCTCCCTTCTCAAGACTATTCTGGCTTCCTGG
GTACTTAAAAACAGGGCTTAGAGTATGGCTGCTGACAAAATTGCACTCTAAACGCTAGCTTAGGTCTTCTGCGGCCGCGATATC
CTGCAGATGCATCCAGTACTAGTATGGCCC
```

CTA - 550bp

```
GGGGGATCCGTTAGCTATCGTTCGCGAGAAAGTTAGTAGACACACAGGACCCAGGCGTGCAAGTCAATTTCAGCTGACTACACC
GATTCTGGTTAAAAGAGCCTATGGCCACCCTTATTTTAGAGAAAAAAAACCACACCTCTAATGTGTTGGGCACTAGAAAAAGCT
AACTACCTAGTCCGTTTCTGGACGACTTCATTGGGAATAACATACCCCCCACTGTGATTAAGACTGGCACTGTCCTAATGCTTT
CTTCAATAGGTTTGGCTCATGTGTGATTCCCTCTGGCAAACTTATAGAGGACAAGCAGAATAAACCAATTCAAGGTCGTTGTAG
CTGAAGGCCTGGCCTGCCTGACAGTTAATTATGAGCATGTCTTGCCCTTCATGGTGGATATTCACAGCTGAAAGTGGTATTGGC
ATTTTTTTTCTGAGGACACAACGAGGAAATCTGATAAATACGGCCACCTGAAGTCTAGCTCGGAGTTAACAATTTACCACGTTTA
GAGCGGCCGCGATATCCTGCAGATGCATCCAGTACTAGTATGGCCC
```

CTA - 650bp

```
GGGGGATCCGCTCGCACTTAGCCTGTTAAGGGGTTCGCGCTCGTCTAGTCTGTGCTGTTGCCTGGATAGTAAATTATCATGGTA
CAAACTTTTAAGAGCCAGTTAAATGGAGATGGATTTAAAAAGAGTTATTGTAAAGTCTCCCCAGGTGTGTCATTAAATATCCCA
ACAGATTGCCCTGGCCTGACCCCCTAAATGCAATTTTGGGATTCCCTTTTAGTTGCTTTCATTAAAATGTACCAGCGCAGTAAA
AAAAGCACAAAGTATATTGTTTATGTAACTCACTATCTCATTTGCACTGGTTACATGGCAGCTTCAGACTGACTAAAACTACAC
TTTTCCCACCATGGTTCAAAGATCAACAGAACTGGGCCAACAAAAGCAATTTTTTCATGTGGTCTAACTACCAACTTATTATGA
GTTAAGTTACTTTTAGGTTTAAAATCACAGCAGTTTTTCCCTCCACACCTCCCAGAGATACTTTCAGGGTGGCTAAACTTGGCT
AAAGGCTTCCGGACCAACCCTTGTTTCTTTATGGTGCTTGTGTCCTGACAACCGCGTAAGGCATGGAAATTCAGCTATTTATCC
GATCGTTTATATGGGCGTGCGGCCGCGATATCCTGCAGATGCATCCAGTACTAGTATGGCCC
```

CTA - 750bp

```
GGGGGATCCTTGGACCGTTAATTCATATATCGAAGTAGCAGGTTGTTGCCCCGCCTGATGTTGCCACTACTTGCTCATGACAGT
TTTTTTAGGCAATGCAAACTACTATTTGATATTTTTTTCCAAGTACAGTTGTAGGGTACTCCTTATACTGATTCTTCTGAGCCT
GTACGGGGAGCATTAGGTACTGATGTAGTAGGAGTTGAGCTTCACAAATTCACCAGGTAAGCCCAAATTTATTTTCTGCTTGGA
CAGGTCCACCTCACATGGGTCTGTCTAATATATTAAAAGAGGGATTTTCTTTGCTGTATTGCAGCCCAGTATATCTGTTACTTA
CAGTAGTAGTCCATTATTGCTGGCCTAGGGGCTTTTGCTCCTACACGAACACCACTCTGTAAAATTTGAGGTCGTCCTTAGAGT
CAAACCATTCATGGAGCGCTCTGTGCATCTACCAACTATCGCTAAGCATTCACTTGGTTGGTTTAAGTGGAGGCAACTCCATTA
TCTTCTAGCATACCCTTCCCAGGCTACATGTAGAAAGAGATCTGTTGGGCCCCACTATTTTTTCACCCAGGGAAGCCTACTTTA
GTTATAGCTTGCCAGAGATTTTCTGTGTCATGTAGAAGTCATCCACTTTTAACACCAGGAGGTGGATGTGGGGCCAGGAAATAT
GTCAATAACGATACGGGACTTCTAACAGTGACTCGCGGCCGCGATATCCTGCAGATGCATCCAGTACTAGTATGGCCC
```


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CTA - 850bp

```
GGGGGATCCTTAAGTCGTGTCCTTCTCCTACGATCTTGTGAACGATGGATATTTTCTTTCTAAACTTTAAACAAACAGTGGAGA
GATGTTGTTGTGTGTGGAACGACGCTTAGCCTACCGAGGAAGATCCAGACTACAATAGAATATGTGGCCAAAACTCTCCGCAAC
TTCAGCAGCAAAAAGGATATTATTGACATAACCTCCTCACAAAAAGTACACAAATGGCTAAATAACAGAGCCCCTCTTTTTACT
AGGGAAATGGTGGATGTGGACTTTAGAATTTAAGATAATAAAGCTCTTGATCCCAATGTTATTTCCATGTGAGGGACATTAAAT
TGAGTAACCTTTGCCACATACCCTCTCCCAGAGTCCATTCTCTAAAACTTGAAGCTCCGCCCCTTTTTACGCACATTAGGCTTC
CAATTACGGTCAATGGTCTTGAAGATTGGGAGCTTTTGAAGAGTAATAAGAACCATCACAAAAAGGAACCCAGAAGCCGGGAGT
GTCTACCAAAAAAATTCAAGGGTTAAAAAAAAGTGACATTTTCTCCTGTTTTTTACACATGATTTTGAATGCTGATGGGTCCAC
GTCCAGCTCTAAAGGTAGGTTCATGGTTCTCCAAAGTTGCTTTCTTGTCAGAATTGAGCCACATCAGGTAGGTGGGGAAGTAGA
TCAGTGAGGATGCTTCACATGTGTGGGCACTGGGAACAGAATGCTTCAATAACACGAGCTGACGAGGGCCCGCTATGAAAAAAA
AGATTCTCTGTGCCCCCTGGCGCCTCCGCACTTAAAGAATTGATGACCGTGCGGCCGCGATATCCTGCAGATGCATCCAGTACT
AGTATGGCCC
```

CTL - 150bp

```
AGTATGGCCCGGGGGATCCTACGTTCCAAATGCAGCGAGCTCGTATAACCCTTTAAGAGTTGCTCTTTTTGTTTGGTAAGTTGC
AAATCGAAGTTTTAGATTGAGTTCTACGTCGAGCGGCCGCGATATCCTGCAGATGCATCCAGTACA
```

CTL - 250bp

```
AGTATGGCCCGGGGGATCCTTATCTGTCAAAACCGCTAATGTCCGTTCTAAGACCGTCTGGAGAACACTTGCCCATCAGTGCTT
TTGAACCTTTTTTTCACAGGTCCCTTCCGATTACACTGAGAAGCTGACCACACCTGCTAGAAGATGGAGGTATGCAGCCCGTTA
GTAGGAGTAATACTACCCAGCTTATAACCCTCAAACGTAGGGCAGATGGCGGCCGCGATATCCTGCAGATGCATCCAGTACA
```

CTL - 350bp

```
AGTATGGCCCGGGGGATCCTAGAGACCATTCGCGATTCCATGAGACTCCAAGGGTTCTGCACAACTTATGCACCTCTATTAGAT
CATTGTGTTCTACGAAGCCTGGACTGCATTACATATTCACAACCAACATGAGAAGAGCGGAATAGATGGCCGGATGTTTGGTGG
CTTTGATATATTGTGAGGAGCATTGCGAACCCTAGAGCTGTCCGGTCAAATAACCCCCTCACAATAAGTGTAATGTCATGGGAT
AATCAAAAGACTAAGGGAGGGCTTTTATAGAAGGCGTGAGGTCATGCTATCCCCCTCTGAAGACGCGGCCGCGATATCCTGCAG
ATGCATCCAGTACA
```


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CTL - 450bp

```
AGTATGGCCCGGGGGATCCGTATACGTTTCTAATTTGTAGTTAACGGTTGGATACCACTTTGAGGCATGTAATATGGTACTGAG
CTTCGGCACAGGGCTCAAATTGCATCATTAAATGTCTCCGATGTGGCTATATGTCATGGATAAAGGCAGCCCCCTATATCTTTT
TTTGTGGCAGCATGGGTCCATCAAAGCAATTATTCAGGGTCTTAATGACCTCCACAGCTCTAAACGTAATTCATCTGGCTTTGC
CTGTACTTACTTCCTCCATGAAAAAAAGTGTTGATAATGCTCATAATGCTGCCCAGCAATTTCCTCCCTTCTCAAGACTATTCT
GGCTTCCTGGGTACTTAAAAACAGGGCTTAGAGTATGGCTGCTGACAAAATTGCACTCTAAACGCTAGCTTAGGTCTTCTGCGG
CCGCGATATCCTGCAGATGCATCCAGTACA
```

CTL - 550bp

```
AGTATGGCCCGGGGGATCCGTTAGCTATCGTTCGCGAGAAAGTTAGTAGACACACAGGACCCAGGCGTGCAAGTCAATTTCAGC
TGACTACACCGATTCTGGTTAAAAGAGCCTATGGCCACCCTTATTTTAGAGAAAAAAAACCACACCTCTAATGTGTTGGGCACT
AGAAAAAGCTAACTACCTAGTCCGTTTCTGGACGACTTCATTGGGAATAACATACCCCCCACTGTGATTAAGACTGGCACTGTC
CTAATGCTTTCTTCAATAGGTTTGGCTCATGTGTGATTCCCTCTGGCAAACTTATAGAGGACAAGCAGAATAAACCAATTCAAG
GTCGTTGTAGCTGAAGGCCTGGCCTGCCTGACAGTTAATTATGAGCATGTCTTGCCCTTCATGGTGGATATTCACAGCTGAAAG
TGGTATTGGCATTTTTTTCTGAGGACACAACGAGGAAATCTGATAAATACGGCCACCTGAAGTCTAGCTCGGAGTTAACAATTT
ACCACGTTTAGAGCGGCCGCGATATCCTGCAGATGCATCCAGTACA
```

CTL - 650bp

```
AGTATGGCCCGGGGGATCCGCTCGCACTTAGCCTGTTAAGGGGTTCGCGCTCGTCTAGTCTGTGCTGTTGCCTGGATAGTAAAT
TATCATGGTACAAACTTTTAAGAGCCAGTTAAATGGAGATGGATTTAAAAAGAGTTATTGTAAAGTCTCCCCAGGTGTGTCATT
AAATATCCCAACAGATTGCCCTGGCCTGACCCCCTAAATGCAATTTTGGGATTCCCTTTTAGTTGCTTTCATTAAAATGTACCA
GCGCAGTAAAAAAAGCACAAAGTATATTGTTTATGTAACTCACTATCTCATTTGCACTGGTTACATGGCAGCTTCAGACTGACT
AAAACTACACTTTTCCCACCATGGTTCAAAGATCAACAGAACTGGGCCAACAAAAGCAATTTTTTCATGTGGTCTAACTACCAA
CTTATTATGAGTTAAGTTACTTTTAGGTTTAAAATCACAGCAGTTTTTCCCTCCACACCTCCCAGAGATACTTTCAGGGTGGCT
AAACTTGGCTAAAGGCTTCCGGACCAACCCTTGTTTCTTTATGGTGCTTGTGTCCTGACAACCGCGTAAGGCATGGAAATTCAG
CTATTTATCCGATCGTTTATATGGGCGTGCGGCCGCGATATCCTGCAGATGCATCCAGTACA
```

CTL - 750bp

```
AGTATGGCCCGGGGGATCCTTGGACCGTTAATTCATATATCGAAGTAGCAGGTTGTTGCCCCGCCTGATGTTGCCACTACTTGC
TCATGACAGTTTTTTTAGGCAATGCAAACTACTATTTGATATTTTTTTCCAAGTACAGTTGTAGGGTACTCCTTATACTGATTC
TTCTGAGCCTGTACGGGGAGCATTAGGTACTGATGTAGTAGGAGTTGAGCTTCACAAATTCACCAGGTAAGCCCAAATTTATTT
TCTGCTTGGACAGGTCCACCTCACATGGGTCTGTCTAATATATTAAAAGAGGGATTTTCTTTGCTGTATTGCAGCCCAGTATAT
CTGTTACTTACAGTAGTAGTCCATTATTGCTGGCCTAGGGGCTTTTGCTCCTACACGAACACCACTCTGTAAAATTTGAGGTCG
TCCTTAGAGTCAAACCATTCATGGAGCGCTCTGTGCATCTACCAACTATCGCTAAGCATTCACTTGGTTGGTTTAAGTGGAGGC
AACTCCATTATCTTCTAGCATACCCTTCCCAGGCTACATGTAGAAAGAGATCTGTTGGGCCCCACTATTTTTTCACCCAGGGAA
GCCTACTTTAGTTATAGCTTGCCAGAGATTTTCTGTGTCATGTAGAAGTCATCCACTTTTAACACCAGGAGGTGGATGTGGGGC
CAGGAAATATGTCAATAACGATACGGGACTTCTAACAGTGACTCGCGGCCGCGATATCCTGCAGATGCATCCAGTACA
```


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CTL - 850bp

```
AGTATGGCCCGGGGGATCCTTAAGTCGTGTCCTTCTCCTACGATCTTGTGAACGATGGATATTTTCTTTCTAAACTTTAAACAA
ACAGTGGAGAGATGTTGTTGTGTGTGGAACGACGCTTAGCCTACCGAGGAAGATCCAGACTACAATAGAATATGTGGCCAAAAC
TCTCCGCAACTTCAGCAGCAAAAAGGATATTATTGACATAACCTCCTCACAAAAAGTACACAAATGGCTAAATAACAGAGCCCC
TCTTTTTACTAGGGAAATGGTGGATGTGGACTTTAGAATTTAAGATAATAAAGCTCTTGATCCCAATGTTATTTCCATGTGAGG
GACATTAAATTGAGTAACCTTTGCCACATACCCTCTCCCAGAGTCCATTCTCTAAAACTTGAAGCTCCGCCCCTTTTTACGCAC
ATTAGGCTTCCAATTACGGTCAATGGTCTTGAAGATTGGGAGCTTTTGAAGAGTAATAAGAACCATCACAAAAAGGAACCCAGA
AGCCGGGAGTGTCTACCAAAAAAATTCAAGGGTTAAAAAAAAGTGACATTTTCTCCTGTTTTTTACACATGATTTTGAATGCTG
ATGGGTCCACGTCCAGCTCTAAAGGTAGGTTCATGGTTCTCCAAAGTTGCTTTCTTGTCAGAATTGAGCCACATCAGGTAGGTG
GGGAAGTAGATCAGTGAGGATGCTTCACATGTGTGGGCACTGGGAACAGAATGCTTCAATAACACGAGCTGACGAGGGCCCGCT
ATGAAAAAAAAGATTCTCTGTGCCCCCTGGCGCCTCCGCACTTAAAGAATTGATGACCGTGCGGCCGCGATATCCTGCAGATGC
ATCCAGTACA
```


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Legacy Kits

This section lists legacy kits that are no longer available for purchase.

Nextera DNA Sample Prep Kit (Epicentre Biotechnologies)

(Obsolete)

Transposon Sequences

5′ GCCTCCCTCGCGCCATCAGAGATGTGTATAAGAGACAG

5′ GCCTTGCCAGCCCGCTCAGAGATGTGTATAAGAGACAG

Adapters (Showing Optional Bar Code)

5′ AATGATACGGCGACCACCGAGATCTACACGCCTCCCTCGCGCCATCAG

5′ CAAGCAGAAGACGGCATACGAGAT[barcode]CGGTCTGCCTTGCCAGCCCGCTCAG-3'

PCR Primers

5′ AATGATACGGCGACCACCGA

5′ CAAGCAGAAGACGGCATACGA

TruSeq Synthetic Long-Read DNA

(Obsolete)

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 DNA Methylation

Adapter Trimming

The following sequence is used for adapter trimming.

Read 1

AGATCGGAAGAGCACACGTCTGAAC

Read 2

AGATCGGAAGAGCGTCGTGTAGGGA

TruSeq Universal Adapter

5′ AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTTCCGATCT

Index PCR Primers

5′ CAAGCAGAAGACGGCATACGAGAT[6 bases]GTGACTGGAGTTCAGACGTGTGCTCTTCCGATCT

Index Adapters

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

Adapter Trimming

The following sequence is used for adapter trimming.

AGATCGGAAGAGCACACGTCT

3′ Adapter

5′ AGATCGGAAGAGCACACGTCT

Forward PCR Primer

```
5′ ATGATACGGCGACCACCGAGATCTACACGTTCAGAGTTCTACAGTCCGACG
```

Index PCR Primers

```
5′ CAAGCAGAAGACGGCATACGAGAT[6 bases]GTGACTGGAGTTCAGACGTGTGCTCTTCCGATCT
```

Index Adapters

i7 Index Name	Six-Base Sequence for Sample Sheet
A001	ATCACG
A002	CGATGT
A003	TTAGGC
A004	TGACCA
A005	ACAGTG
A006	GCCAAT
A007	CAGATC
A008	ACTTGA
A009	GATCAG
A010	TAGCTT
A011	GGCTAC
A012	CTTGTA

Oligonucleotide Sequences for Genomic DNA

(Obsolete)

Adapters

```
5′ P-GATCGGAAGAGCTCGTATGCCGTCTTCTGCTTG
```

```
5′ ACACTCTTTCCCTACACGACGCTCTTCCGATCT
```

PCR Primers

```
5′ AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGCTCTTCCGATCT
```

```
5′ CAAGCAGAAGACGGCATACGAGCTCTTCCGATCT
```

Genomic DNA Sequencing Primer

```
5′ ACACTCTTTCCCTACACGACGCTCTTCCGATCT
```

Oligonucleotide Sequences for Paired End (PE) 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
```

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

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′ CAAGCAGAAGACGGCATACGAGATAAGCTAGTGACTGGAGTTC

PCR Primer, Index 11

5′ CAAGCAGAAGACGGCATACGAGATGTAGCCGTGACTGGAGTTC

PCR Primer, Index 12

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5′ CAAGCAGAAGACGGCATACGAGATTACAAGGTGACTGGAGTTC

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

(Obsolete)

RT Primer

5' CAAGCAGAAGACGGCATACGA

5′ RNA Adapter

5′ GUUCAGAGUUCUACAGUCCGACGAUC

3′ RNA Adapter

5′ P-UCGUAUGCCGUCUUCUGCUUGUidT

Small RNA v1.5 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

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Revision History

Document	Date	Description of Change
Document # 1000000002694 v22	September 2025	Added Illumina miRNA sequences.
Document # 1000000002694 v21	March 2025	Added: • Trimming sequence for Illumina Stranded RNA kits. • Illumina Single Cell RNA Indexes.
Document # 1000000002694 v20	January 2025	Added Index 2 base orientation information for MiSeq i100 Series. Removed statements indicating that the read orientation of the Index 2 sequence is dictated by whether the Index 2 primer is grafted to the flow cell or in solution.
Document # 1000000002694 v19	October 2023	Corrected sequences for the following Illumina Unique Dual Indexes, Set A: • UDP0069V3, UDP0070V3, UDP0071V3, UDP0072V3, UDP0073V3, UDP0074V3, UDP0075V3, UDP0076V3. Added clarification for TSO 500 ctDNA v2 and TSO 500 HT kits.
Document # 1000000002694 v18	September 2023	Added adapter sequences for Illumina Unique Dual Indexes Set A-D and Illumina Unique Dual Indexes, LT. Added clarification for entering the Index 2 (i5) bases on the sample sheet in forward or reverse orientation. Added clarification of adapter trimming sequences usage. Added clarification for V2 indexes used with IDT for Illumina UD Indexes Set C and Set D.

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Document	Date	Description of Change
Document # 1000000002694 v17	February 2023	Updated references to NextSeq to include NextSeq 1000. Added NovaSeq X Series to the i5 sample sheet v2. For IDT for Illumina Indexes, Plate D/Set 4, corrected UDP0289, UDP0290, UDP0291, and UDP0301 sequences for i5 bases for sample sheets of the following instruments: • iSeq 100 • NovaSeq 6000 with v1.5 reagent kits • MiniSeq • NextSeq 500/550 • HiSeq 3000/4000/X • NextSeq 1000/2000 (sample sheet v1) Added A-tailing information for TruSeq workflows. Added information on the workflows used to prime and read the i5 index (Index 2). Added adapter trimming sequences for TruSight DNA Enrichment, TruSight Tumor 170 and TruSight Oncology 500, TruSight Oncology ctDNA, and TruSight RNA Pan-Cancer Panel kits.
Document # 1000000002694 v16	April 2021	Added HTML format.
Document # 1000000002694 v15	February 2021	Corrected i7 bases in adapters sequences for TruSeq indexes. Added the following sequences and bases: • V1 indexes for UDI0015, UDI0016, UDI0055, UDI0056, UDP0252, UDP0258, UDP0289, UDP0290, UDP0291, and UDP0301. • TruSight Tumor 15 i7 indexes. • i5 bases in adapters for IDT for Illumina UD Indexes.
Document # 1000000002694 v14	July 2020	Added information in support of the NovaSeq 6000 Reagent Kit v1.5. Added adapter sequencing for IDT for Illumina-PCR UD Indexes Set 1, 2, 3, and 4.

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Document	Date	Description of Change
Document # 1000000002694 v13	June 2020	Replaced UDI0015, UDI0016, UDI0055, UDI0056, UDP0252, UDP0258, UDP0289, UDP0290, UDP0291, and UDP0301 with V2 versions. Updated Nextera section to reflect new kit names. Added NextSeq 2000 to the IDT for Illumina–TruSeq DNA and RNA UD Indexes table.
Document # 1000000002694 v12	March 2020	Added information for HiSeq X. Added information for NextSeq 2000. Added TruSight Oncology 500 adapter sequences. Corrected the following information: • IDT for Illumina Nextera DNA UD Indexes, Plate D adapter sequences for i5 bases iSeq, MiniSeq, NextSeq, HiSeq 3000/4000. • TruSight Tumor 170 UP08 i7 and i5 index names. • TruSight Tumor 170 UP08 and UP09 i7 adapter sequences.
Document # 1000000002694 v11	April 2019	Added adapter sequences for IDT for Illumina Nextera DNA UD Indexes Sets B, C, and D.
Document # 1000000002694 v10	February 2019	Added sequences for AmpliSeq UD Indexes for Illumina and AmpliSeq CD Indexes. Renamed the following sections to include RNA: • *IDT for Illumina TruSeq DNA and RNA UD Indexes* • *TruSeq DNA and RNA CD Indexes* Corrected TruSeq Small RNA sequences needed for sample sheet.

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Document	Date	Description of Change
Document # 1000000002694 v09	November 2018	Updated the document structure: • Consolidated sections by kit. • Consolidated index adapter tables for TruSight DNA Enrichment and Nextera DNA indexes. • Divided the *IDT for Illumina UD Indexes* section between the Nextera and TruSeq sections. • Reorganized TruSight RNA Pan-Cancer Panel information for clarity and consistency. • Reorganized TruSeq Small RNA index adapters into a table. • Moved TruSeq Synthetic Long-Read DNA, TruSeq DNA Methylation, and TruSeq Ribo Profile sequences to *Legacy Kits*. Added the following sequences and bases: • Adapter trimming sequences where applicable. • Bases for [E/H/N/S]517, a Nextera DNA i5 adapter. • The i7 bases in adapter for TruSeq UD Indexes. • The universal adapter sequence for TruSeq DNA Methylation. • For TruSight Tumor 170, the i5 sample sheet bases for systems that do not require an i5 reverse complement. Added the following miscellaneous information: • The adapter sequences for TruSight RNA Pan-Cancer Panel and TruSeq Single Indexes can vary. • Current versions of Sequencing Analysis Viewer do not show metrics for control sequences
Document # 1000000002694 v08	October 2018	Added IDT for Illumina Nextera DNA UD Indexes.
Document # 1000000002694 v07	June 2018	Added the iSeq 100 Sequencing System, which requires a reverse complement.
Document # 1000000002694 v06	February 2018	Added TruSight Tumor 170 indexes.
Document # 1000000002694 v05	February 2018	Updated IDT for Illumina to include 96 indexes.

Document	Date	Description of Change
Document # 1000000002694 v04	January 2018	Added AmpliSeq for Illumina Panels.
Document # 1000000002694 v03	October 2017	Corrected i5 bases for Nextera DNA CD Indexes for use with MiSeq and HiSeq systems. Reorganized TruSeq sections.
Document # 1000000002694 v02	September 2017	Added adapters for Nextera DNA CD Indexes.
Document # 1000000002694 v01	February 2016	Added explanation of reverse complements in the sample sheet. 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, which requires a reverse complement.
Document # 1000000002694 v00	October 2015	Added information for the following TruSight kits: • TruSight Cardio • TruSight Myeloid Sequencing Panel • TruSight One • TruSight Rapid Capture • TruSight Tumor 15 • TruSight Tumor 26 Created a TruSeq Amplicon section with information for the following kits: • TruSeq Custom Amplicon 1.5 • TruSeq Amplicon Cancer Panel • 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. Assigned document # 1000000002694.

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