



iUDI Plate LACEseq_Set Z

1. Introduction

The **iUDI Plate LACEseq_Set Z** contains 12 unique dual-indexed PCR primers for the amplification of Illumina®-compatible NGS libraries. These primers are compatible with the Immagina kits listed in Table I, as well as with any commercially available kit that utilizes TruSeq™-compatible indexing primers.

Table I. iUDI Plate LACEseq_Set Z *Immagina products compatibility.*

Product Name	Cat nr
ALL-IN-ONE RiboLace Gel Free (12 rxns)	GF001-12
RiboLace 360 TE Gel Free Kit (12 rxns)	360TE-12
RiboLace 360 Gel Free Kit (12 rxns)	360SQ-12
LACEseq (12rxns)	LS001-12
ALL-IN-ONE RiboLace Multiplexing	MPX36-06
ALL-IN-ONE RiboLacePro (12 rxns)	RS0XL-12

The indexed PCR primers are supplied pre-dispensed in 0.2 ml PCR Strip Tubes. Each dual index is intended for single use. All indexes have been functionally validated to work with Illumina sequencing systems using two- or four- channel chemistry for base calling.

2. Product Catalog

Store all components at -20°C.

Table II. iUDI Plate LACEseq_Set Z *Unique Dual Index sets.*

Product name	Set	Cat. No.	Concentration	Volume per tube
iUDIs (12 rxns)	Z1-12	#UDI0Z-12	20 µM total (10 µM each Primer)	5 µl
iUDIs (12 rxns)	Z13-24	#UDI0Z-12	20 µM total (10 µM each Primer)	5 µl
iUDIs (12 rxns)	Z25-36	#UDI0Z-12	20 µM total (10 µM each Primer)	5 µl
iUDIs (12 rxns)	Z37-48	#UDI0Z-12	20 µM total (10 µM each Primer)	5 µl

3. General Considerations

A. Best Practices

- Avoid subjecting iUDI Plate LACEseq index plates to multiple freeze/thaw cycles.
- Before use, thaw the primers on ice and briefly spin the tubes to collect contents at the bottom. Ensure there is no visible condensation inside the tubes before opening. Keep the tubes on ice during handling.
- When setting up PCR reactions, open each tube and pipette the required volume of indexing primers. Always use a fresh pipette tip for each tube to prevent cross-contamination of indexes

B. Multiplexing and Index Pooling

It is important to select appropriate single indexes that are unique and meet the Illumina-recommended compatibility requirements. For small pools (≤ 4 samples), please verify color balance before pooling following the [Illumina guidelines](#).

4. iUDI LACEseq Plates Unique Dual Index Sequences

Set Z1-12. In the iUDI LACEseq Plate **iUDIs (12 rxns) set Z1-12, Cat. Number #UDI0Z-12**, the unique dual indexes (z1-z12) are 10-nt long i5 and i7 dual index sequences (Table III).

Table III. iUDI Plate LACEseq **Unique Dual Index Sequences Cat. Number #UDI0Z-12**

IMMAGINA index name	i5 index (HiSeq® 2000/2500 MiSeq®, NextSeq2000, NovaSeq®6000 v1.0)	i5 index (NextSeq®500/550, iSeq, MiniSeq, HiSeq 3000/4000/X, NextSeq 2000 NovaSeq®6000 v1.5)	i7 index (all Illumina systems)
Z1	ATGCGCTTAT	ATAAGCGCAT	CTTCGCAACT
Z2	CACTTCACCA	TGGTGAAGTG	CGTCAAGACG
Z3	GGTATAGGGG	CCCCTATACC	TGTCACACTG
Z4	GCAATTCCGC	GCGGAATTGC	AGCCGTAAAG
Z5	AACCGTGTA	TTACACGGTT	CCACATTGCC
Z6	CTTCACTGCT	AGCAGTGAAG	ACGTCCAAAC
Z7	ACTGCACTAC	GTAGTGCAGT	CTCGAACACT
Z8	GGAACATGGG	CCCATGTTCC	AACCAGAGAA
Z9	CCAGTATCCC	GGGATACTGG	CACCAGTTCA
Z10	AACAGTCCAA	TTGGACTGTT	TTGCGAGATT
Z11	TCGGATTCTC	GAGAATCCGA	ACAAGCTCAC
Z12	CAACGAGTCA	TGACTCGTTG	GATAGCCAGA

Set Z13-24. In the iUDI LACEseq Plate **iUDIs (12 rxns) set Z13-24, Cat. Number #UDI0Z-12**, the unique dual indexes (z13-z24) are 10-nt long i5 and i7 dual index sequences (Table IV).

Table IV. iUDI Plate LACEseq Unique Dual Index Sequences Cat. Number #UDI0Z-12

IMMAGINA index name	i5 index (HiSeq® 2000/2500 MiSeq®, NextSeq2000, NovaSeq®6000 v1.0)	i5 index (NextSeq®500/550, iSeq, MiniSeq, HiSeq 3000/4000/X, NextSeq 2000 NovaSeq®6000 v1.5)	i7 index (all Illumina systems)
Z13	CGCGTATTCTG	CGAATACGCG	CAGAACTGCA
Z14	TGGTATCCTG	CAGGATACCA	CAGATCCTCA
Z15	CAAGGTACCA	TGGTACCTTG	ATCCTTCCAT
Z16	ACGGTACAAC	GTTGTACCGT	AGAAGCCTAG
Z17	TCCACGTTTC	GAAACGTGGA	CCTTCCATCC
Z18	ACCTCAGTAC	GTACTGAGGT	TAGAACGCTA
Z19	ACACGAGAAC	GTTCTCGTGT	AACAGCGAAA
Z20	CACTGTAGCA	TGCTACAGTG	ACCGGTTAAC
Z21	GCGTTAGAGC	GCTCTAACGC	GATCAGACGA
Z22	AACGCCTTAA	TTAAGGCGTT	CACGTCTACA
Z23	ACCATGTCAC	GTGACATGGT	TCGAGAGTTC
Z24	GATCTTGCGA	TCGCAAGATC	ATACTGGCAT

Set Z25-36. In the iUDI LACEseq Plate **iUDIs (12 rxns) set Z25-36, Cat. Number #UDI0Z-12**, the unique dual indexes (z25-z36) are 10-nt long i5 and i7 dual index sequences (Table V).

Table V. iUDI Plate LACEseq Unique Dual Index Sequences Cat. Number #UDI0Z-12

IMMAGINA index name	i5 index (HiSeq® 2000/2500 MiSeq®, NextSeq2000, NovaSeq®6000 v1.0)	i5 index (NextSeq®500/550, iSeq, MiniSeq, HiSeq 3000/4000/X, NextSeq 2000 NovaSeq®6000 v1.5)	i7 index (all Illumina systems)
Z25	CCGTAACTCC	GGAGTTACGG	GGTTGAACGG
Z26	AACAAGGCAA	TTGCCTTGTT	CCTCGAATCC
Z27	TTGCAACGTT	AACGTTGCAA	TGGCTACATG
Z28	CAATCAGGCA	TGCCTGATTG	CAGGTAAGCA
Z29	GTACACCTGT	ACAGGTGTAC	GTAAGCACGT
Z30	CGAGTTAGCG	CGCTAACTCG	AACACGCTAA
Z31	ACAGGCATAC	GTATGCCTGT	TTACCGACTT
Z32	GTTCCATGGT	ACCATGGAAC	ACCGCTATAC
Z33	CACGATTCCA	TGGAATCGTG	CATGAGCACA
Z34	CTCTCAGACT	AGTCTGAGAG	TGACCGTTTG
Z35	GAACGAAGGA	TCCTTCGTTC	ACACTCTGAC
Z36	CATCACGTCA	TGACGTGATG	GAGCAATCGA

Set Z37-48. In the iUDI LACEseq Plate **iUDIs (12 rxns) set Z37-48, Cat. Number #UDI0Z-12**, the unique dual indexes (z37-z48) are 10-nt long i5 and i7 dual index sequences (Table VI).

Table VI. iUDI Plate LACEseq Unique Dual Index Sequences Cat. Number #UDI0Z-12

IMMAGINA index name	i5 index (HiSeq® 2000/2500 MiSeq®, NextSeq2000, NovaSeq®6000 v1.0)	i5 index (NextSeq®500/550, iSeq, MiniSeq, HiSeq 3000/4000/X, NextSeq 2000 NovaSeq®6000 v1.5)	i7 index (all Illumina systems)
Z37	CTCGGTAAC	AGTTACCGAG	CAATGCGACA
Z38	CCAAGTAGCC	GGCTACTTGG	CAACTTGGCA
Z39	GGTGTACAGG	CCTGTACACC	TCTAGGAGTC
Z40	CCTGTCAACC	GGTTGACAGG	CCAAGGTTCC
Z41	ACAACGTGAC	GTCACGTTGT	CTGGTCATCT
Z42	TGGACCATTG	CAATGGTCCA	ACCATAGGAC
Z43	CACATGGTCA	TGACCATGTG	GCCTTAACGC
Z44	AACTTGCCAA	TTGGCAAGTT	TATGGCACTA
Z45	CCTCATCTCC	GGAGATGAGG	ACGAATCCAC
Z46	AGTACACGAG	CTCGTGTACT	TCACTCGATC
Z47	CCTACCTACC	GGTAGGTAGG	CAGACGTTCA
Z48	TCAGTAGGTC	GACCTACTGA	GTCAACAGGT

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