SINGULAR GENOMICS

SG UNIVERSAL LIBRARY PREP ADAPTER + UDI PRIMERS OVERVIEW

The SG Universal Library Prep Adapter + UDI Primers bundle provides adapter, primers, and reagents designed to support the preparation of indexed libraries for the G4™ Sequencing Platform.

For more information about Singular Genomics® primers and adapters, see the Adapters and Indices for the G4 Sequencing Platform Reference Guide.

Product Configurations

Product Name	Ordering #	Quantity
SG Universal Library Prep Adapter + UDI Primers [1-96]	#700,110	96 reactions
SG Universal Library Prep Adapter + UDI Primers Set A [1-24]	#700,111	24 reactions
SG Universal Library Prep Adapter + UDI Primers Set B [25-48]	#700,112	24 reactions

SG Universal LP Adapter + UDI Primers Contents

One SG Universal LP Adapter + UDI Primers product contains:

Components	Container	Description
SG Universal Library Prep Adapter	Freestanding micro-centrifuge tube	Universal Adapter containing SP1 and SP2 sequences, 15 µM. 24 rxn: 130 µL, 96 rxn: 520 µL.
UDI Primer Plate	96-well Plate	Plate with indexed Singular Genomics S1/SP1 PCR primers and S2/SP2 PCR primers, each at 5 µM concentration in at least 10 µL per well.
4X Cleave Reaction Buffer	Freestanding micro-centrifuge tube	Buffer for cleave reaction. 920 µL per tube.
Cleave Enzyme	Freestanding micro-centrifuge tube	Enzyme that cleaves the cleavable site in the adapter. 24 rxn: 130 µL, 96 rxn: 520 µL.

For Research Use Only. Not for use in diagnostic procedures.

UDI Primer Plate

Singular Genomics provides 96 dual indexed primers (UDIs) for sample indexing in a 96-well plate format. Each well contains two indices at 5 µM concentration each. The indices are named S1-Index[X] and S2-Index[X], with X being the UDI number for the well as indicated in Figure 1. For example, well A01 contains S1-Index[1] and S2-Index[1], while well B01 contains S1-Index[2] and S2-Index[2], and so on. The S1 Sequencing Primer is used to sequence the S1-Index[X], while the S2 Sequencing Primer is used to sequence the S2-Index[X].

	Set A			Set B								
	01	02	03	04	05	06	07	08	09	10	11	12
A	1	9	17	25	33	41	49	57	65	73	81	89
B	2	10	18	26	34	42	50	58	66	74	82	90
C	3	11	19	27	35	43	51	59	67	75	83	91
D	4	12	20	28	36	44	52	60	68	76	84	92
E	5	13	21	29	37	45	53	61	69	77	85	93
F	6	14	22	30	38	46	54	62	70	78	86	94
G	7	15	23	31	39	47	55	63	71	79	87	95
H	8	16	24	32	40	48	56	64	72	80	88	96

Figure 1 UDI primer plate layout.

The products contain the following indices:

- Products labeled Set of 96 provide indices 1 through 96.
- Products labeled Set A provide indices 1 through 24 in columns 01, 02, and 03.
- Products labeled Set B provide indices 25 through 48 in columns 04, 05, and 06.

The index sequences of the indices in each well are listed in *Index Sequences* on page 4.

Consumable Storage Temperatures

Components	Shipping Temperature	Storage Temperature
SG Universal Library Prep Adapter	Dry ice	-15°C to -25°C
UDI Primer Plate	Dry ice	-15°C to -25°C
4X Cleave Reaction Buffer	Dry ice	-15°C to -25°C
Cleave Enzyme	Dry ice	-15°C to -25°C

Shelf Life

Always check the expiration date on your kit before use. Expiration dates are listed on the kit label.

Prepare SG Universal LP Adapter + UDI Primers for Use

1. Remove adapter, primer plate, and 4X Cleave Buffer from -25°C to -15°C storage.
2. Place the primer plate on your bench top to thaw.
3. Place the adapter and 4X Cleave Buffer in a water bath with room temperature deionized water.
4. Leave reagents until completely thawed.
5. *Tubes*: Vortex thawed reagent tubes and then centrifuge briefly.
6. *Plate*: Centrifuge thawed plate briefly at 850×g for 5 seconds to collect the liquid in the bottom of the well.
7. Keep on ice until ready to use.

   NOTE
   Do not thaw or vortex the tube with Cleave Enzyme. Keep in -25°C to -15°C storage as long as possible, and when taken out of storage, keep on ice or in a -25°C to -15°C cooling block.

   NOTE
   When using the primers in the plate, pierce the foil of the well to prevent cross contamination. Do not remove the foil. If you want to preserve the primers in a pierced well for future use, cover the well with a piece of new plate sealing film that has been cut to only cover the wells that are pierced. Do not cover wells that have not been pierced; removing the sealing film destroys the unpierced foil and may result in cross-contamination.

Index Sequences

Table 1 Index 1 and index 2 sequence of Singular Genomics UDIs.

Dual Index 1	Index 1 Sequence	Dual Index 2	Index 2 Sequence	Set	Row	Column
S1-Index1	TAAGACCCTACT	S2-Index1	GGGACATATTGA	Full set, Set A	A	1
S1-Index2	CGAAGTACATCC	S2-Index2	TAGGACGTAACG	Full set, Set A	B	1
S1-Index3	TAGCCTTCCAAA	S2-Index3	AGTATGGCAAGA	Full set, Set A	C	1
S1-Index4	GCCTTTCAAGTC	S2-Index4	TAGAGTCGTCGT	Full set, Set A	D	1
S1-Index5	CAACGGTTCCGG	S2-Index5	ACGTTTCGCTCG	Full set, Set A	E	1
S1-Index6	GTTGCATGGCCC	S2-Index6	TAGGGAACGATG	Full set, Set A	F	1
S1-Index7	ATCGTTGCTATC	S2-Index7	ATGACTCCGCAT	Full set, Set A	G	1
S1-Index8	CCTCGAATTCAT	S2-Index8	GGTTGCTACCGG	Full set, Set A	H	1
S1-Index9	TGAACGTCCGCC	S2-Index9	TCCTCGATTGAA	Full set, Set A	A	2
S1-Index10	CATCTAGCAAGC	S2-Index10	ATGTAGCGTCTC	Full set, Set A	B	2
S1-Index11	TATCGAGGCAAC	S2-Index11	CATCATGCGTAC	Full set, Set A	C	2
S1-Index12	GAGACGTAGCAA	S2-Index12	ACCTTGACCGGG	Full set, Set A	D	2
S1-Index13	ATCATGCGCCCG	S2-Index13	TTGACGAGATCT	Full set, Set A	E	2
S1-Index14	AGGAGCTAGGGA	S2-Index14	GGGCTAATGTCA	Full set, Set A	F	2
S1-Index15	ATCGACCATGCT	S2-Index15	TTAGGAGCGAAC	Full set, Set A	G	2
S1-Index16	TGCGAATCGACA	S2-Index16	GTACATCGAGTA	Full set, Set A	H	2
S1-Index17	ATGTTCCCCTCT	S2-Index17	AGGCTTTGTCAT	Full set, Set A	A	3
S1-Index18	TCGCTCATCTAG	S2-Index18	CGACGATATTTG	Full set, Set A	B	3
S1-Index19	CCTAAGGTAAAC	S2-Index19	AAACTCCGTTGT	Full set, Set A	C	3
S1-Index20	GAATAGCGCTTA	S2-Index20	ACGTACCAAGAC	Full set, Set A	D	3
S1-Index21	CGATGTACATCC	S2-Index21	TCCGATGTCGGC	Full set, Set A	E	3
S1-Index22	CAAGTCGAAACC	S2-Index22	AGGTTACCGCGT	Full set, Set A	F	3
S1-Index23	GTAACGGATAGC	S2-Index23	ATGCCGAAACGT	Full set, Set A	G	3
S1-Index24	GAAGCTTGGTCA	S2-Index24	ACATACGCGGGG	Full set, Set A	H	3
S1-Index25	AACCCGTAACCA	S2-Index25	GGATCTAGGACG	Full set, Set B	A	4
S1-Index26	AATGCTCCCCTA	S2-Index26	TCGACTCTCCGT	Full set, Set B	B	4
S1-Index27	GTATGACGGATG	S2-Index27	TACGCTAGACAA	Full set, Set B	C	4

Dual Index 1	Index 1 Sequence	Dual Index 2	Index 2 Sequence	Set	Row	Column
S1-Index28	GCAAAGCTTGGA	S2-Index28	ATTTCGGGTAAG	Full set, Set B	D	4
S1-Index29	TCTAACCGGCTA	S2-Index29	CTAGCCAACGCC	Full set, Set B	E	4
S1-Index30	ATTGGAGCCCGC	S2-Index30	TGATAGCCGGTT	Full set, Set B	F	4
S1-Index31	TGTCCGATCTAT	S2-Index31	GCATGGTTCCTA	Full set, Set B	G	4
S1-Index32	ACATCGCATGTT	S2-Index32	GACGGTAATGAG	Full set, Set B	H	4
S1-Index33	ACTTCCGACAAT	S2-Index33	CGAAGTCATCAA	Full set, Set B	A	5
S1-Index34	GCTCCTATGCCT	S2-Index34	TGGACTACAAAC	Full set, Set B	B	5
S1-Index35	CATAACGCGAAT	S2-Index35	ATACGCGACATT	Full set, Set B	C	5
S1-Index36	CGGACAATGATT	S2-Index36	TCCCTATGATAC	Full set, Set B	D	5
S1-Index37	GCTACTTGGAAA	S2-Index37	GAGCTCTACGCA	Full set, Set B	E	5
S1-Index38	TAAGCGAGTAGT	S2-Index38	CTAGAGGTTACC	Full set, Set B	F	5
S1-Index39	TGCTTGACTCCG	S2-Index39	AACCCTTGTTCG	Full set, Set B	G	5
S1-Index40	GACATCGTCGGG	S2-Index40	GTCGTAAGGGGT	Full set, Set B	H	5
S1-Index41	AGCTATGGGACG	S2-Index41	TATACCCGGCCC	Full set, Set B	A	6
S1-Index42	ACGACTAGGCTC	S2-Index42	TGCTAAGCGAGC	Full set, Set B	B	6
S1-Index43	TACCGTACGATA	S2-Index43	CGTCCTAAAACT	Full set, Set B	C	6
S1-Index44	TAGAAGGCGCGT	S2-Index44	ATATCGGGTAAG	Full set, Set B	D	6
S1-Index45	CGTCATCAAGGA	S2-Index45	GAGACGTTCTTA	Full set, Set B	E	6
S1-Index46	CCGTAAGATAGA	S2-Index46	GCTTAACGATCA	Full set, Set B	F	6
S1-Index47	TAGACTCGTTTC	S2-Index47	CGCTAGTACTAT	Full set, Set B	G	6
S1-Index48	TATCGGCTTGGT	S2-Index48	ACGGGTTATTAG	Full set, Set B	H	6
S1-Index49	TCAAGAGCGGAG	S2-Index49	CGGACTTTTGTA	Full set	A	7
S1-Index50	TTACCCGTAGAA	S2-Index50	TCCATTGCTTCT	Full set	B	7
S1-Index51	GCTCTCAATCGG	S2-Index51	GTCTCATGGCGG	Full set	C	7
S1-Index52	GTCTACGTTTAC	S2-Index52	TGACTTGGAGAA	Full set	D	7
S1-Index53	TCCGTATGAGAC	S2-Index53	ACCGTATCCGAT	Full set	E	7
S1-Index54	CGCCAATACGTC	S2-Index54	CTATGGGACGGT	Full set	F	7
S1-Index55	GATGGTCTAGCA	S2-Index55	TAGTTCCCATTC	Full set	G	7
S1-Index56	CTCGCTTAAGGC	S2-Index56	CTCCAAGACATC	Full set	H	7
S1-Index57	GGCAACATGGGT	S2-Index57	ATTACCGCGGTA	Full set	A	8

Dual Index 1	Index 1 Sequence	Dual Index 2	Index 2 Sequence	Set	Row	Column
S1-Index58	AGACTCTCATCA	S2-Index58	CTAAGCTCCTAA	Full set	B	8
S1-Index59	TGACAAGGTCAA	S2-Index59	TGAACGTCCTTC	Full set	C	8
S1-Index60	CGGTATGTCATC	S2-Index60	CCATGCAATCTA	Full set	D	8
S1-Index61	GACTCATGAATG	S2-Index61	TAGCGTTCATTG	Full set	E	8
S1-Index62	CGTAGACATTGA	S2-Index62	AGCATTCGAGCC	Full set	F	8
S1-Index63	CATTCGCTCCCT	S2-Index63	AACCTCGAACAT	Full set	G	8
S1-Index64	ACAATCGGGGAC	S2-Index64	CAAATCGCGGAA	Full set	H	8
S1-Index65	GGACTTAGAGCG	S2-Index65	GTCAAGAGGTTA	Full set	A	9
S1-Index66	GACCGATTCTCG	S2-Index66	TTAAGGCCGGGA	Full set	B	9
S1-Index67	TGGAAACCCGAG	S2-Index67	TCGAAAGGGAAA	Full set	C	9
S1-Index68	GGCCTAATGGAA	S2-Index68	GGAGTCAAATAG	Full set	D	9
S1-Index69	TTGTACGCGTAC	S2-Index69	CCGTTCTATACA	Full set	E	9
S1-Index70	ATGTCGAGTTGC	S2-Index70	TGCGAATGCGAA	Full set	F	9
S1-Index71	CTTCGTACCTCC	S2-Index71	GCGATCATGACT	Full set	G	9
S1-Index72	TTAGGTCCGAGA	S2-Index72	CCGAAATCCAAC	Full set	H	9
S1-Index73	CTAGCTCTTCGT	S2-Index73	TCGGAGTTTTAC	Full set	A	10
S1-Index74	CTTGTCCAACTT	S2-Index74	CTATCCGTCCCG	Full set	B	10
S1-Index75	CTTAGCGACCCA	S2-Index75	TAACGCGTACCC	Full set	C	10
S1-Index76	CGTAGGTTAACA	S2-Index76	CTCGTACTTAGC	Full set	D	10
S1-Index77	AGCATTCCATGT	S2-Index77	GACTCGAAATGA	Full set	E	10
S1-Index78	TCGTTACCAACG	S2-Index78	TTAACCGGCCGA	Full set	F	10
S1-Index79	TTGCTAGGACAT	S2-Index79	TTCCTAGCAACC	Full set	G	10
S1-Index80	CGAGACTTCTAC	S2-Index80	GAATAGCGTCCC	Full set	H	10
S1-Index81	GGTCTATGTTTG	S2-Index81	AATGACGGATGT	Full set	A	11
S1-Index82	GATGCCATAGTA	S2-Index82	AGTAGCTCGTCC	Full set	B	11
S1-Index83	GTACGAGTTCCT	S2-Index83	TGGCCATTCTCC	Full set	C	11
S1-Index84	TTCCATCGGTAG	S2-Index84	ACGCCATAACCG	Full set	D	11
S1-Index85	ACGCTATCATCT	S2-Index85	CGTTAACCCGCT	Full set	E	11
S1-Index86	GTCCAAGAGTTC	S2-Index86	TTGAGCCTTGCT	Full set	F	11
S1-Index87	CGAATGGTAAGA	S2-Index87	ACCCGTAACAAG	Full set	G	11

Dual Index 1	Index 1 Sequence	Dual Index 2	Index 2 Sequence	Set	Row	Column
S1-Index88	AGGTTTCGGTAT	S2-Index88	AAAGGTCGCCCC	Full set	H	11
S1-Index89	GGTTCAAGATAC	S2-Index89	TACGAGCTCCTC	Full set	A	12
S1-Index90	GTTAAGCGGGCG	S2-Index90	GGCATAGAGCGA	Full set	B	12
S1-Index91	AAGCTACGCGAA	S2-Index91	GGTAGCATTCGG	Full set	C	12
S1-Index92	TTGAGCGTCCGA	S2-Index92	CGACAAGTTCGA	Full set	D	12
S1-Index93	CCTATGCAATTG	S2-Index93	GGCAATGTACTT	Full set	E	12
S1-Index94	CTATTGCCTACG	S2-Index94	CCGGTAAACCCA	Full set	F	12
S1-Index95	CCTCTTGAAGAG	S2-Index95	GCCCATTAGATT	Full set	G	12
S1-Index96	TGGGTTACGGGC	S2-Index96	CAAGGTTCTCTT	Full set	H	12

Index sequences can be downloaded as CSV file from the Singular Genomics G4 support site: Singular-Genomics-UDIs-1-96.csv.

Revision History

Document #	Revision	Release Date	Description of Change
600014	Rev. 0	June 2023	Initial release.

Customer Care

Our team is committed to ensuring your success. Field application scientists, field service engineers, and customer care specialists are dedicated to responding quickly and effectively to your inquiries. From preparing your lab for the arrival of your instrument, to onsite training in system operation and maintenance and continued support, we'll be with you every step of the way.

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