



BIO SCIENTIFIC
a PerkinElmer company

NEXTFLEX-96™ DNA Barcodes
(For Illumina® Platforms)
Catalog #NOVA-514105 (Kit contains 768 reactions)



**This product is for research use only.
Not for use in diagnostic procedures.**

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NEXTflex-96™ DNA Barcodes - 514105

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Product Overview

The NEXTflex™ DNA Barcodes are designed to prepare multiplexed single and paired-end genomic DNA libraries for sequencing using Illumina® platforms. The index and flow cell binding sequence are designed within the NEXTflex™ DNA Barcodes and are attached onto the sample insert during adapter ligation. Pooling with NEXTflex DNA Barcodes allows the user to multiplex several samples in a single flow cell.

Contents, Storage and Shelf Life

The NEXTflex™ DNA Barcodes contain 96 DNA-Seq Barcoded Adapters with enough material for 8 reactions each, for a total of 768 reactions. The shelf life of each reagent is 12 months when stored at -20°C.

Kit Contents	Amount
NEXTflex-96™ HT Barcode Adapter 1 - 96* (25 µM)	20 µL
NEXTflex™ Primer Mix (12.5 µM)	1536 µL

*The Barcoded Adapters are supplied in duplex form. Do not heat the adapter above room temperature.

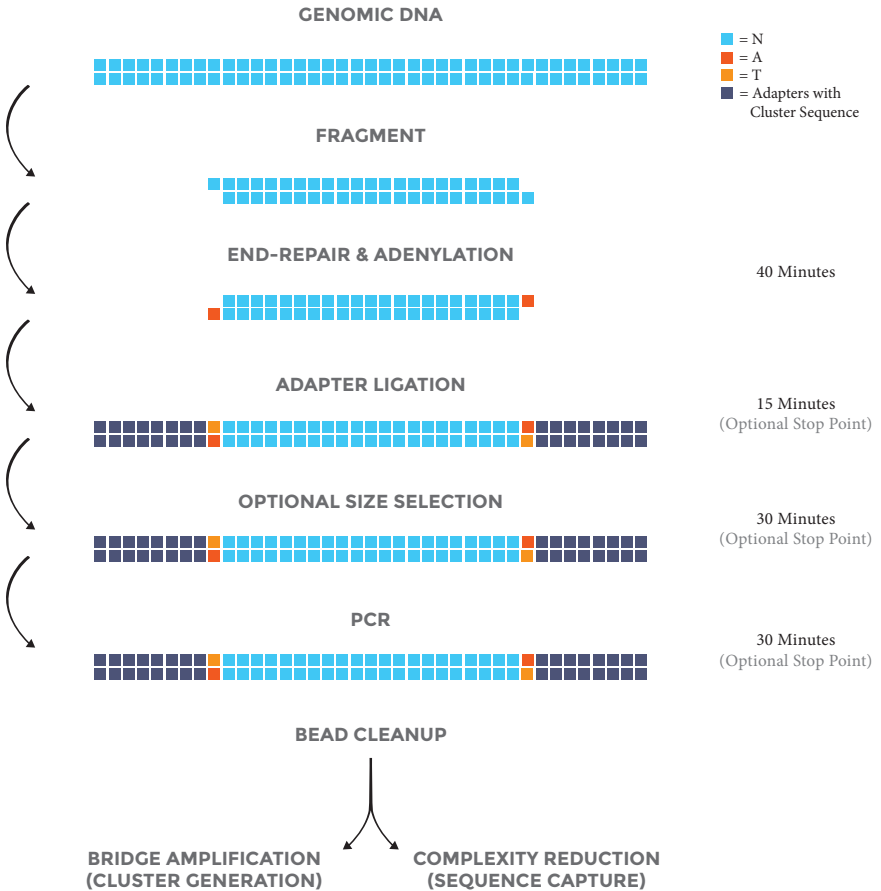
Warnings and Precautions

Bioo Scientific strongly recommends that you read the following warnings and precautions. Periodically, optimizations and revisions are made to the components and manual. Therefore, it is important to follow the protocol included with the kit. If you need further assistance, you may contact your local distributor, or contact Bioo Scientific at nextgen@biooscientific.com.

- Do not use the kit past the expiration date.
- Ensure pipettes are properly calibrated as library preparations are highly sensitive to pipetting error.
- Do not heat the DNA-Seq Barcoded Adapters above room temperature.
- Once plate has thawed, spin for one minute before use. This is to ensure all liquid settles to the bottom of the plate.
- The plate seal is intended to be pierced. Do not peel the plate seal from the plate, doing so can easily lead to cross-contamination. Additional thermal heat seals may be applied upon one another to re-seal plate. Improper re-sealing may cause evaporation and variation in adapter concentration. Additional heat seals may be purchased separately (Cat # 514199).
- Carefully mix adapters by pipetting up and down using a multichannel pipette with barrier tips several time before use. NEVER mix plates by vortexing. Placing a plate on a vortexer to mix samples or barcodes has been proven to result in cross-contamination, even if the plate appears to be securely sealed.
- Try to maintain a laboratory temperature of 20°–25°C (68°–77°F).
- The NEXTflex™ Primer Mix must be used during PCR amplification. Inadvertent use of an incorrect primer sequence can potentially result in elimination of the index.

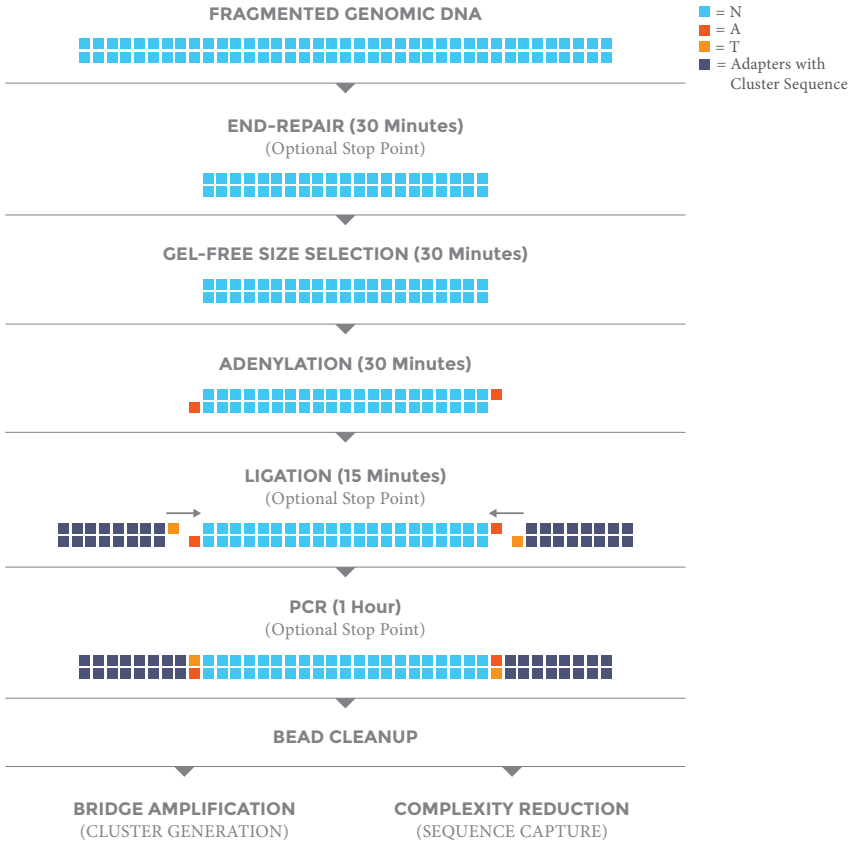
NEXTflex™ Rapid DNA-Seq Sample Preparation Flow Chart

Figure 1: Sample flow chart with approximate times necessary for each step.



NEXTflex™ DNA-Seq Sample Preparation Flow Chart

Figure 2: Sample flow chart with approximate times necessary for each step.



Oligonucleotide Sequences

NEXTflex™	Sequence (5' → 3')
PCR Primer 1	AATGATACGGCGACCACCGAGATCTACAC
PCR Primer 2	CAAGCAGAAGACGGCATACGAGAT
NEXTflex-96™ DNA-Seq Barcode Adapter	AATGATACGGCGACCACCGAGATCTACACTCTTTCCCTACACGACGGCTCTTCCGATCT GATCGGAAGAGCACACGTCTGAACTCCAGTCACXXXXXXXX'ATCTCGTATGCCGTCTTCTGCTTG

'XXXXXXXXX' denotes the index region of adapter. The index sequences contained in each adapter are listed below.

NEXTflex™ DNA-Seq Index		NEXTflex™ DNA-Seq Index	
Barcode Adapter 1	AACGTGAT	Barcode Adapter 31	GACTAGTA
Barcode Adapter 2	AAACATCG	Barcode Adapter 32	CAATGGAA
Barcode Adapter 3	ATGCCTAA	Barcode Adapter 33	CACTTCGA
Barcode Adapter 4	AGTGGTCA	Barcode Adapter 34	CAGCGTTA
Barcode Adapter 5	ACCACTGT	Barcode Adapter 35	CATACCAA
Barcode Adapter 6	ACATTGGC	Barcode Adapter 36	CCAGTTC A
Barcode Adapter 7	CAGATCTG	Barcode Adapter 37	CCGAAGTA
Barcode Adapter 8	CATCAAGT	Barcode Adapter 38	CCGTGAGA
Barcode Adapter 9	CGCTGATC	Barcode Adapter 39	CCTCCTGA
Barcode Adapter 10	ACAAGCTA	Barcode Adapter 40	CGAACTTA
Barcode Adapter 11	CTGTAGCC	Barcode Adapter 41	CGACTGGA
Barcode Adapter 12	AGTACAAG	Barcode Adapter 42	CGCATACA
Barcode Adapter 13	AACAACCA	Barcode Adapter 43	CTCAATGA
Barcode Adapter 14	AACCGAGA	Barcode Adapter 44	CTGAGCCA
Barcode Adapter 15	AACGCTTA	Barcode Adapter 45	CTGGCATA
Barcode Adapter 16	AAGACGGA	Barcode Adapter 46	GAATCTGA
Barcode Adapter 17	AAGGTACA	Barcode Adapter 47	CAAGACTA
Barcode Adapter 18	ACACAGAA	Barcode Adapter 48	GAGCTGAA
Barcode Adapter 19	ACAGCAGA	Barcode Adapter 49	GATAGACA
Barcode Adapter 20	ACCTCAA	Barcode Adapter 50	GCCACATA
Barcode Adapter 21	ACGCTCGA	Barcode Adapter 51	GCGAGTAA
Barcode Adapter 22	ACGTATCA	Barcode Adapter 52	GCTAACGA
Barcode Adapter 23	ACTATGCA	Barcode Adapter 53	GCTCGGTA
Barcode Adapter 24	AGAGTCAA	Barcode Adapter 54	GGAGAACA
Barcode Adapter 25	AGATCGCA	Barcode Adapter 55	GGTGCGAA
Barcode Adapter 26	AGCAGGAA	Barcode Adapter 56	GTACGCAA
Barcode Adapter 27	AGTCACTA	Barcode Adapter 57	GTCGTAGA
Barcode Adapter 28	ATCCTGTA	Barcode Adapter 58	GTCTGTCA
Barcode Adapter 29	ATTGAGGA	Barcode Adapter 59	GTGTTCTA
Barcode Adapter 30	CAACCACA	Barcode Adapter 60	TAGGATGA

NEXTflex™ DNA-Seq Index	
Barcode Adapter 61	TATCAGCA
Barcode Adapter 62	TCCGTCTA
Barcode Adapter 63	TCTTCACA
Barcode Adapter 64	TGAAGAGA
Barcode Adapter 65	TGGAACAA
Barcode Adapter 66	TGGCTTCA
Barcode Adapter 67	TGGTGGTA
Barcode Adapter 68	TTCACGCA
Barcode Adapter 69	AACTCACC
Barcode Adapter 70	AAGAGATC
Barcode Adapter 71	AAGGACAC
Barcode Adapter 72	AATCCGTC
Barcode Adapter 73	AATGTTGC
Barcode Adapter 74	ACACGACC
Barcode Adapter 75	ACAGATTC
Barcode Adapter 76	AGATGTAC
Barcode Adapter 77	AGCACCTC
Barcode Adapter 78	AGCCATGC

NEXTflex™ DNA-Seq Index	
Barcode Adapter 79	AGGCTAAC
Barcode Adapter 80	ATAGCGAC
Barcode Adapter 81	ATCATTCC
Barcode Adapter 82	ATTGGCTC
Barcode Adapter 83	CAAGGAGC
Barcode Adapter 84	CACCTTAC
Barcode Adapter 85	CCATCCTC
Barcode Adapter 86	CCGACAAC
Barcode Adapter 87	CCTAATCC
Barcode Adapter 88	CCTCTATC
Barcode Adapter 89	CGACACAC
Barcode Adapter 90	CGGATTGC
Barcode Adapter 91	CTAAGGTC
Barcode Adapter 92	GAACAGGC
Barcode Adapter 93	GACAGTGC
Barcode Adapter 94	GAGTTAGC
Barcode Adapter 95	GATGAATC
Barcode Adapter 96	GCCAAGAC

Low Level Multiplexing

Use the following barcode combinations for low level multiplexing:

2 barcodes: (2, 59) or (8, 58)

3 barcodes: (1, 2, 59) or (6, 7, 54) or (7, 29, 54)

4 barcodes: (1, 2, 3, 50) or (5, 68, 76, 94)

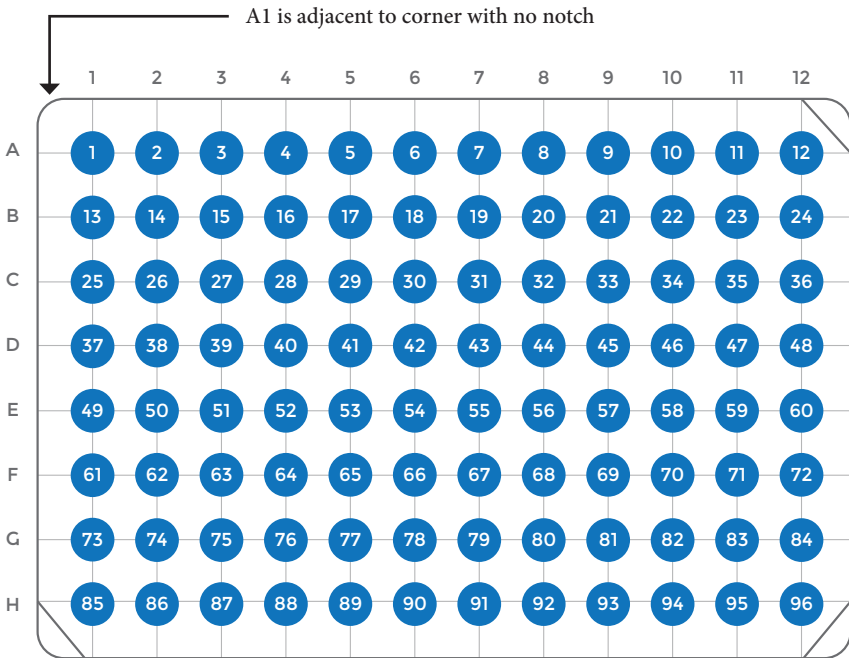
APPENDIX B

Plate Format

96 HT Barcoded Adapters / Plate; 20 μ L (8 reactions) / well.

Assay Plate: Eppendorf E0030129512; twin.tec; 96 LoBind; Skirted; Clear

Heat Seal: 4titude Pierce Seal 4ti



Illumina Compatible RNA NGS Kits and Adapters

Catalog #	Product
5138-01	NEXTflex™ Rapid RNA-Seq Kit (8 reactions)
5138-02	NEXTflex™ Rapid RNA-Seq Kit (48 reactions)
5138-07	NEXTflex™ Rapid Directional RNA-Seq Kit (8 reactions)
5138-08	NEXTflex™ Rapid Directional RNA-Seq Kit (48 reactions)
512911	NEXTflex™ RNA-Seq Barcodes –6
512912	NEXTflex™ RNA-Seq Barcodes – 12
512913	NEXTflex™ RNA-Seq Barcodes – 24
512914	NEXTflex™ RNA-Seq Barcodes – 48
512916	NEXTflex-96™ RNA-Seq Barcodes
5130-01	NEXTflex™ qRNA-Seq™ Kit 4 barcodes (8 reactions)
5130-02	NEXTflex™ qRNA-Seq™ Kit 24 barcodes - Set A (48 reactions)
5130-03	NEXTflex™ qRNA-Seq™ Kit 24 barcodes - Set B (48 reactions)
5130-04	NEXTflex™ qRNA-Seq™ Kit 24 barcodes - Set C (48 reactions)
5130-05	NEXTflex™ qRNA-Seq™ Kit 24 barcodes - Set D (48 reactions)
5130-01D	NEXTflex™ Rapid Directional qRNA-Seq™ Kit 4 barcodes (8 reactions)
5130-02D	NEXTflex™ Rapid Directional qRNA-Seq™ Kit 24 barcodes - Set A (48 reactions)
5130-03D	NEXTflex™ Rapid Directional qRNA-Seq™ Kit 24 barcodes - Set B (48 reactions)
5130-04D	NEXTflex™ Rapid Directional qRNA-Seq™ Kit 24 barcodes - Set C (48 reactions)
5130-05D	NEXTflex™ Rapid Directional qRNA-Seq™ Kit 24 barcodes - Set D (48 reactions)
5132-01	NEXTflex™ Small RNA Sequencing Kit (24 reactions)
5132-02	NEXTflex™ Small RNA Sequencing Kit (48 reactions)
5132-03	NEXTflex™ Small RNA Sequencing Kit v2 (24 reactions)
5132-04	NEXTflex™ Small RNA Sequencing Kit v2 (48 reactions)
513305	NEXTflex™ Small RNA Barcode Primers -12 (Set A)
513306	NEXTflex™ Small RNA Barcode Primers -12 (Set B)
513307	NEXTflex™ Small RNA Barcode Primers -12 (Set C)
513308	NEXTflex™ Small RNA Barcode Primers -12 (Set D)
512979	NEXTflex™ Poly(A) Beads (8 reactions)
512980	NEXTflex™ Poly(A) Beads (48 reactions)
512981	NEXTflex™ Poly(A) Beads (100 reactions)

Illumina Compatible DNA NGS Kits and Adapters

Catalog #	Product
4201-01	NEXTflex™ 16S V4 Amplicon-Seq Kit – 4
4201-02	NEXTflex™ 16S V4 Amplicon-Seq kit – 12
4201-03	NEXTflex™ 16S V4 Amplicon-Seq kit – 24
4201-04	NEXTflex™ 16S V4 Amplicon-Seq kit – 48
4201-05	NEXTflex™ 16S V4 Amplicon-Seq kit – 96
4201-06	NEXTflex™ 16S V4 Amplicon-Seq kit – 192
4201-07	NEXTflex™ 16S V4 Amplicon-Seq kit – 288
4202-01	NEXTflex™ 16S V1-V3 Amplicon-Seq Kit - 4
4202-02	NEXTflex™ 16S V1-V3 Amplicon-Seq Kit - 12
4202-03	NEXTflex™ 16S V1-V3 Amplicon-Seq Kit - 48
4202-04	NEXTflex™ 16S V1-V3 Amplicon-Seq Kit - 1-96
4202-05	NEXTflex™ 16S V1-V3 Amplicon-Seq Kit - 97-192
4202-06	NEXTflex™ 16S V1-V3 Amplicon-Seq Kit - 193-288
4202-07	NEXTflex™ 16S V1-V3 Amplicon-Seq Kit - 289-384
5140-01	NEXTflex™ DNA Sequencing Kit (8 reactions)
5140-02	NEXTflex™ DNA Sequencing Kit (48 reactions)
5144-01	NEXTflex™ Rapid DNA-Seq Kit (8 reactions)
5144-02	NEXTflex™ Rapid DNA-Seq Kit (48 reactions)
5150-01	NEXTflex™ Cell Free DNA-Seq Kit (8 reactions)
5150-02	NEXTflex™ Cell Free DNA-Seq Kit (48 reactions)
514101	NEXTflex™ DNA Barcodes – 6
514102	NEXTflex™ DNA Barcodes – 12
514103	NEXTflex™ DNA Barcodes – 24
514104	NEXTflex™ DNA Barcodes – 48
514105	NEXTflex-96™ DNA Barcodes (Plate Format)
514106	NEXTflex-96™ DNA Barcodes (Tube Format)
514160	NEXTflex™ Dual-Indexed DNA Barcodes (1-96)
514161	NEXTflex™ Dual-Indexed DNA Barcodes (97-192)
5119-01	NEXTflex™ Bisulfite-Seq kit (8 reactions)
5119-02	NEXTflex™ Bisulfite-Seq kit (48 reactions)
511911	NEXTflex™ Bisulfite-Seq Barcodes – 6
511912	NEXTflex™ Bisulfite-Seq Barcodes – 12
511913	NEXTflex™ Bisulfite-Seq Barcodes - 24
5118-01	NEXTflex™ Methyl-Seq 1 Kit (8 reactions)
5118-02	NEXTflex™ Methyl-Seq 1 Kit (48 reactions)

511921	NEXTflex™ Msp 1 (8 reactions)
511922	NEXTflex™ Msp 1 (48 reactions)

5143-01	NEXTflex™ ChIP-Seq Kit (8 reactions)
5143-02	NEXTflex™ ChIP-Seq Kit (48 reactions)
514120	NEXTflex™ ChIP-Seq Barcodes – 6
514121	NEXTflex™ ChIP-Seq Barcodes – 12
514122	NEXTflex™ ChIP-Seq Barcodes – 24
514123	NEXTflex™ ChIP-Seq Barcodes – 48
514124	NEXTflex-96™ ChIP-Seq Barcodes

5140-51	NEXTflex™ Pre-Capture Combo Kit (6 barcodes)
5140-52	NEXTflex™ Pre-Capture Combo Kit (12 barcodes)
5140-53	NEXTflex™ Pre-Capture Combo Kit (24 barcodes)
5140-56	NEXTflex™ Pre-Capture Combo Kit (48 barcodes)
5140-54	NEXTflex™ Pre-Capture Combo Kit (96 barcodes)
514131	NEXTflex™ DNA Barcode Blockers - 6 for SeqCap
514132	NEXTflex™ DNA Barcode Blockers - 12 for SeqCap
514133	NEXTflex™ DNA Barcode Blockers - 24 for SeqCap
514136	NEXTflex™ DNA Barcode Blockers - 48 for SeqCap
514134	NEXTflex™ DNA Barcode Blockers - 96 for SeqCap

5142-01	NEXTflex™ PCR-Free DNA Sequencing Kit (8 reactions)
5142-02	NEXTflex™ PCR-Free DNA Sequencing Kit (48 reactions)
514110	NEXTflex™ PCR-Free Barcodes – 6
514111	NEXTflex™ PCR-Free Barcodes – 12
514112	NEXTflex™ PCR-Free Barcodes – 24
514113	NEXTflex™ PCR-Free Barcodes – 48

DNA Fragmentation

Catalog #	Product
5135-01	AIR™ DNA Fragmentation Kit (10 reactions)
5135-02	AIR™ DNA Fragmentation Kit (40 reactions)

NOTES

NOTES



WE WANT TO HEAR FROM YOU!

Your feedback is important to us. Tell us what you think of our kits by scanning the QR code or visiting our website at www.biooscientific.com/NGSfeedback.

We can't wait to hear from you!



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