

NEXTFLEX® Small RNA Sequencing v3 Automation Kit with UDI (96 rxn)

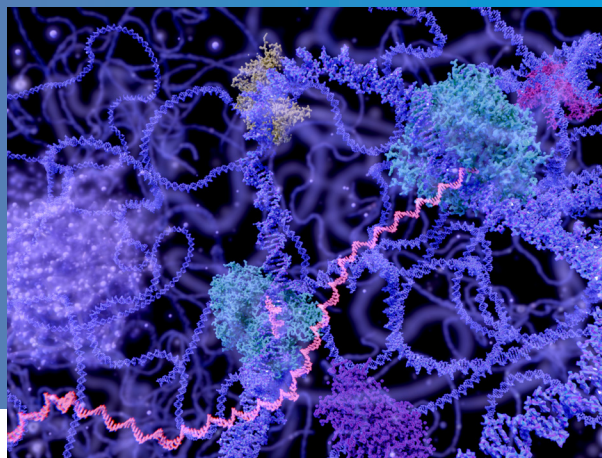
NOVA-5132-18 (UDI 1 - 96)

NOVA-5132-19 (UDI 97 - 192)

NOVA-5132-20 (UDI 193 - 288)

NOVA-5132-21 (UDI 289 - 384)

NEXTFLEX® Small RNA Sequencing v3 with UDI



Product Overview

The NEXTFLEX® Small RNA-Seq kit v3 for automation with UDIs contains the necessary reagents to process 96 small RNA libraries from purified RNA sample through library preparation.

The NEXTFLEX® Small RNA-Seq kit v3 automation workflow on the PerkinElmer Sciclone® G3 NGS/NGSx or Zephyr® G3 NGS workstation allows for preparation of up to 48 libraries on the Zephyr® G3 workstation and 96 libraries on Sciclone® G3 workstation at a time from purified total or small RNA, using up to 96 pre-plated unique dual index barcoded PCR primers. The complete workflow takes approximately 12 hours to complete. Contact your PerkinElmer Field Application Scientist for reagent and workflow details, necessary hardware, software, applications, and consumables/materials not provided.

The NEXTFLEX® Small RNA-Seq kit v3 is compatible with cell-free RNA, such as RNA isolated from plasma. Users who wish to deplete the abundant tRNA fragments and Y RNA fragments found in many types of cell-free RNA should use the NEXTFLEX® tRNA/YRNA blocker (not included in kit).

perkinelmer-appliedgenomics.com/nextflex-small-rna-seq-kit-v3-with-udis/

Provided Reagents

Contents, Storage, and Shelf Life

The NEXTFLEX® Small RNA-Seq v3 kit for automation with UDIs contains enough material to prepare 96 RNA samples compatible with Illumina® next-generation sequencing platforms. The shelf life of all reagents is 6 months when stored properly. All components can safely be stored at -20°C, except: Adapter Depletion Solution, Resuspension Buffer, and Nuclease-free Water, which can be stored at room temperature, and the NEXTFLEX® Cleanup Beads, which should be stored at 4°C.

Part No.	Vendor / Part Number	Part	Quantity Needed for 96 Samples
6008870	PerkinElmer®	Bio-Rad Hard-Shell® 96 Well PCR Plate, Full Skirt	14
111426	PerkinElmer®	Pipette Tip, 150 µL, Art, Box, 10-96 Sterile Racks	34
6008880	PerkinElmer®	PP Storage Plate, 96-Deep-well V-Bottom	1
6008700	PerkinElmer®	PP 12-Column Deepwell Reservoir, 21/25mL	2
6000030	PerkinElmer®	Universal Lid	10
6008290	PerkinElmer®	PP Mircoplate-384 well microplate, U Bottom	1

Protocol Steps on the Thermal Cycler

REVERSE TRANSCRIPTION

30 MIN	42°C
10 MIN	90°C
HOLD	4°C

PCR

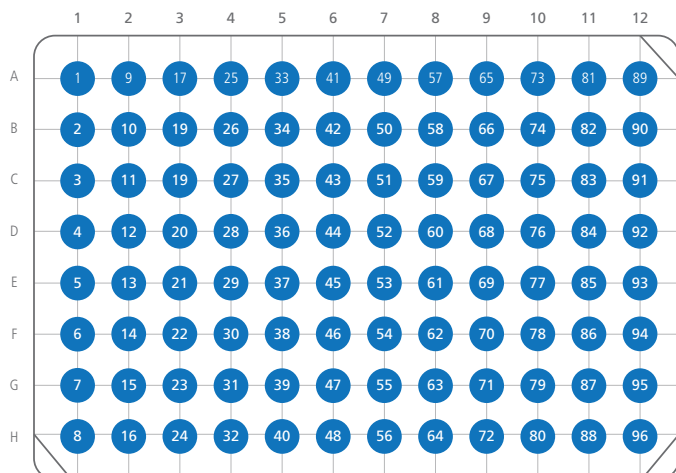
2 MIN	95°C	} Cycle 12-25x
20 SEC	95°C	
30 SEC	60°C	
15 SEC	72°C	
2 MIN	72°C	
HOLD	4°C	

Kit Contents	Amount
RED CAP	
NEXTFLEX® 3' 4N Adenylated Adapter	(2) 70 µL
NEXTFLEX® 3' Ligation Buffer	(2) 480 µL
NEXTFLEX® 3' Ligation Enzyme Mix	(2) 105 µL
PINK CAP	
NEXTFLEX® Adapter Inactivation Buffer	(2) 220 µL
NEXTFLEX® Adapter Inactivation Enzyme	(2) 55 µL
LIGHT PURPLE CAP	
NEXTFLEX® 5' 4N Adapter	(2) 105 µL
NEXTFLEX® 5' Ligation Buffer	(2) 520 µL
NEXTFLEX® 5' Ligation Enzyme Mix	(2) 140 µL
BLUE CAP	
M-MuLV Reverse Transcriptase	(2) 125 µL
NEXTFLEX® RT Buffer	(2) 775 µL
GREEN CAP	
NEXTFLEX® UDI Barcoded Primer*	6 µL each
NEXTFLEX® Small RNA PCR Master Mix	(2) 415 µL
CLEAR CAP	
microRNA Control	(2) 10 µL
CLEAR CAP BOTTLE	
Resuspension Buffer	(2) 5 mL
Nuclease-free Water	(2) 10 mL
NEXTFLEX® Adapter Depletion Solution	(2) 4 mL
NEXTFLEX® Cleanup Beads	(2) 12 mL

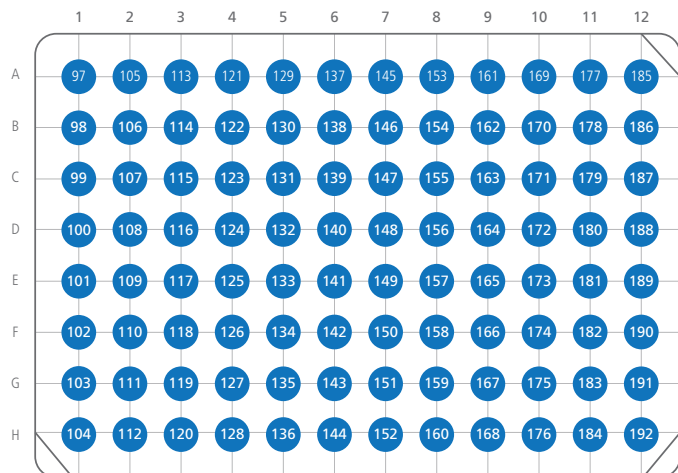
* the UDI Barcoded Primers are at a different concentration than the manual kit and are not compatible with the manual workflow and vice versa.

UDI Barcoded Primer Plate Format

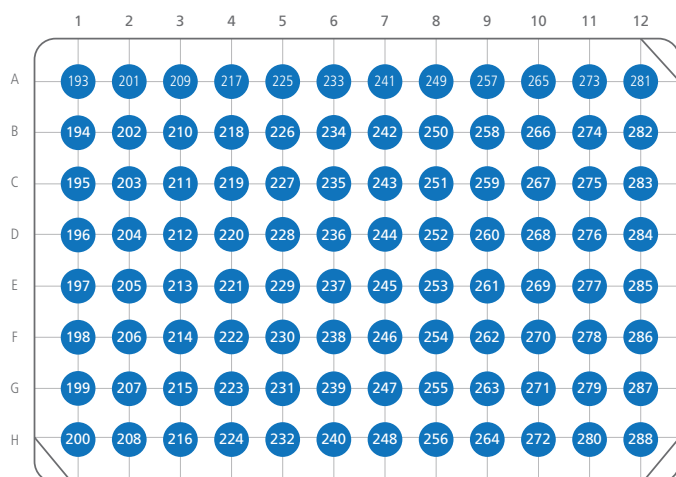
Representative plate layout of UDI Barcoded Primers 1 – 96, 97 – 192, 193 – 288, and 289 – 384 for automation.



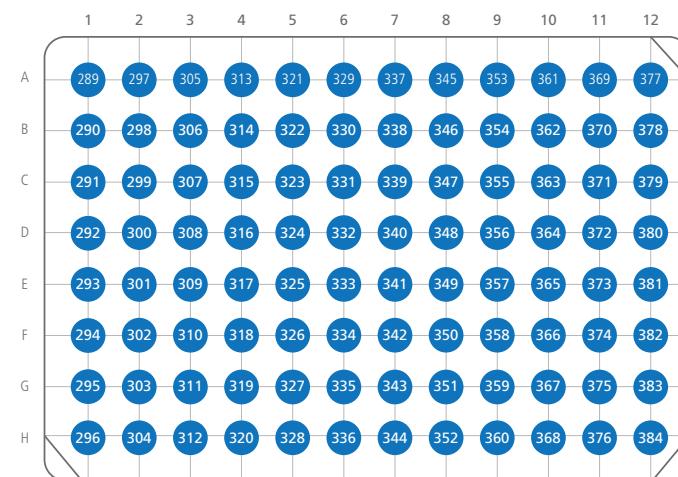
1-96 in columns



97-192 in columns



193-288 in columns



288-384 in columns

Reagents are designed to be used with the automated script.

For any questions, contact your local field application scientist or email NGS@perkinelmer.com.

Discover more at perkinelmer-appliedgenomics.com/smallRNA-UDIs

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