

GeoMx—nCounter RNA Manual Equipment, Materials, & Reagents

Slide Prep

The following equipment ([see Table 1](#)), materials ([see Table 2](#)), and reagents ([see Table 3](#)) are recommended for this protocol but are **not supplied by NanoString**.

EQUIPMENT

Table 1: Equipment not provided by NanoString.

Equipment	Source	Part Numbers
Baking oven	Quincy Lab, Inc. (or comparable)	Various GC models
Hybridization oven including hybridization chamber *: Boekel Scientific RapidFISH Slide Hybridizer or HybEZ II Hybridization System	Boekel Scientific ACDBio	240200 for 120V or 240200-2 for 230V 321710/321720 310012 321717 321716 310025
<ul style="list-style-type: none"> HybEZ oven Humidity control tray EZ-Batch Wash Tray EZ-Batch Slide Holder HybEZ Humidifying Paper (2 sheets) 		
Water bath (up to at least 37°C)	Various	Various
UV Light Box (optional)	VWR	Various
5-quart Steamer	Nesco or Hamilton Beach Note: Products from other vendors may require testing and optimization.	ST-25F 37530Z

* These hybridization ovens are designed to keep the slides hydrated and maintain a precise temperature overnight. NanoString does not recommend the use of any other hybridization ovens for GeoMx RNA DSP. Please contact NanoString with any concerns.

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MATERIALS

Table 2: Materials not provided by NanoString.

Materials	Source	Part Numbers
Pipettes for 5–1,000 µL	Various	Various
12-channel P20 multi-channel pipette	Various	Various
Filter Tips (RNase/DNase free)	Various	Various
Microtubes	Sarstedt (or comparable)	72.785.005
Superfrost Plus microscope slides	Fisher Scientific (or comparable)	12-550-15
Tissue Tek Slide Stain Dish (plastic Coplin Jars) or equivalent (recommend ~16)	Sakura (or comparable)	25608-904 or 25608-906
Instant-read digital thermometer	Various	Various
Humidity Chamber	Simport	M920-1
Benchtop protector sheet (fits inside the hybridization oven, optional)	Fisher Scientific (or comparable)	15235101
HybriSlip hybridization covers (22 mm x 40 mm x 0.25 mm) Note: this has been validated by NanoString. Do not use other products	Grace Bio-Labs	714022
RNase AWAY	ThermoFisher	7003PK
Heat/cold protectant handling glove	Various	Various
Forceps (for slide handling)	Various	Various
Aluminum foil	Various	Various

REAGENTS

Table 3: Reagents not provided by NanoString.

Reagent	Source/Part Number	Storage
DEPC-treated water	ThermoFisher, AM9922 (or comparable)	RT
10X phosphate buffered saline pH 7.4 (PBS)	Sigma-Aldrich, SKU P5368-10PAK, P5368-5X10PAK (or comparable)	RT
10% neutral buffered formalin (NBF) 	EMS Diasum, Cat # 15740-04 (or comparable)	RT
100% deionized formamide 	ThermoFisher, AM9342 or VWR, VWRV0606 (or comparable)	4°C (bring to RT before opening)
20X SSC (DNase, RNase free)	Sigma-Aldrich, S6639	RT
Proteinase K 	Proteinase K from Ambion, 2546 , or Thermo Fisher, AM2548 Note: Use of Proteinase K from any other vendor will require optimization of incubation times and concentration.	-20°C
1X Tris-EDTA pH 9.0	eBioscience™ IHC Antigen Retrieval Solution - High pH, 00-4956-58 (10X - will need to be diluted with DEPC-treated water)	4°C
Tris base	Sigma-Aldrich, 10708976001 (or comparable)	RT
Glycine	Sigma-Aldrich, G7126 (or comparable)	RT
Citrisolv or Xylene 	Fisher Scientific, Cat # 04-355-121 Sigma Aldrich, SKU 183164-100ML or 183164-500ML (or comparable)	RT
100% ethanol (EtOH): ACS grade or better 	Various	RT
10% Tween 20	Teknova, T0710 (or comparable)	RT

RNA nCounter Readout

The following equipment ([see Table 4](#)) and materials ([see Table 5](#)) are recommended for this protocol but are **not supplied by NanoString**.

Table 4: Equipment not provided by NanoString

Equipment	Manufacturer	Part Numbers
ALPS 50 plate sealer (see Materials list (see Table 5) for compatible heat-sealing foil)	Thermo Fisher	AB-1443A
Heatblock or thermal cycler Note: ensure that this is compatible with hybridization plate used (see the Materials tables)	Various, such as Bio-Rad C1000 deep-well model	Various, such as 1851197
Picofuge	Various	Various
Vortex	Various	Various
Plate spinner/centrifuge (up to at least 2000 g)	Various	Various

Table 5: Materials not provided by NanoString

Materials	Manufacturer	Part Numbers
Pipettes for 0.1–1,000 µL	Various	Various
12-channel P20 multi-channel pipetter	Various	Various
Filter Tips (RNase/DNase free)	Various	Various
Microtubes	Sarstedt	72.785.005
Permeable membrane (dry-down seal)	Sigma	A9224
Eppendorf 96-well twin.tec PCR Plates, semi-skirted, 250 µl	Fisher Scientific	E951020346
Heat-sealing foil seals	Fisher Scientific	AB-0559