

## GeoMx—nCounter RNA BOND RX 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
BOND RX <sup>m</sup> Compact, Fully Automated Advanced Stainer  or BOND RX, Fully Automated Research Stainer	Leica Biosystems	<a href="#">Contact Leica Biosystems</a>
BOND RX Controller, running BOND RX software version 6.0 and above	Leica Biosystems	<a href="#">Contact Leica Biosystems</a>
Baking oven	Quincy Lab, Inc. (or comparable)	<a href="#">Various GC models</a>
Hybridization oven including hybridization chamber *: Boekel Scientific RapidFISH Slide Hybridizer  or HybEZ II Hybridization System	<a href="#">Boekel Scientific</a>	<a href="#">240200 for 120V or 240200-2 for 230V</a>
<ul style="list-style-type: none"> <li>• HybEZ oven</li> <li>• Humidity control tray</li> <li>• EZ-Batch Wash Tray</li> <li>• EZ-Batch Slide Holder</li> <li>• HybEZ Humidifying Paper (2 sheets)</li> </ul>	<a href="#">ACDBio</a>	<a href="#">321710/321720</a>  <a href="#">310012</a> <a href="#">321717</a> <a href="#">321716</a> <a href="#">310025</a>
Water bath (up to at least 37°C)	Various	Various
UV Light Box (optional)	VWR	<a href="#">Various</a>

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\* 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.

**MATERIALS**




Table 2: Materials not provided by NanoString.

Materials	Source	Part Numbers
BOND Research Detection System (includes 6x 30 mL Open Containers)	Leica Biosystems	<a href="#">DS9455</a>
BOND Titration Kit (includes 50 inserts)	Leica Biosystems	<a href="#">OPT9049</a>
BOND Universal Covertiles	Leica Biosystems	<a href="#">S21.2001</a>
BOND Open Containers 30 mL (if additional needed)	Leica Biosystems	<a href="#">OP309700</a>
BOND Titration Container Inserts (if additional needed)	Leica Biosystems	<a href="#">OPT9719</a>
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)	<a href="#">72.785.005</a>
Superfrost Plus microscope slides	Fisher Scientific (or comparable)	<a href="#">12-550-15</a>
Tissue Tek Slide Stain Dish (plastic Coplin Jars) or equivalent	Sakura (or comparable)	<a href="#">25608-904</a> or <a href="#">25608-906</a>
Humidity Chamber	Simport	<a href="#">M920-1</a>
Benchtop protector sheet (fits inside the hybridization oven, optional)	Fisher Scientific (or comparable)	<a href="#">15235101</a>
HybriSlip hybridization covers (22 mm x 40 mm x 0.25 mm) <b>Note:</b> this has been validated by NanoString. Do not use other products	Grace Bio-Labs	<a href="#">714022</a>
RNase AWAY	ThermoFisher	<a href="#">7003PK</a>

**REAGENTS**

The following reagents are recommended for the GeoMx DSP Leica Biosystems RNA workflow but are not supplied by NanoString. BOND reagents are produced by Leica Biosystems; refer to Leica Biosystems product literature for safety information on these reagents.

Table 3: Reagents not provided by NanoString.

Reagent	Source/Part Number	Storage
BOND Dewax Solution, 1 Liter	Leica Biosystems, <a href="#">AR9222</a>	4°C or RT
BOND Epitope Retrieval 2, 1 Liter	Leica Biosystems, <a href="#">AR9640</a>	4°C
BOND Wash Solution 10X Concentrate, 1 Liter	Leica Biosystems, <a href="#">AR9590</a>	4°C
Reagent-grade ethanol	Various	RT
DEPC-treated water	ThermoFisher, <a href="#">AM9922</a> (or comparable)	RT
10X phosphate buffered saline pH 7.4 (PBS)	Sigma-Aldrich, <a href="#">SKU P5368-10PAK</a> , <a href="#">P5368-5X10PAK</a> (or comparable)	RT
10% neutral buffered formalin (NBF) 	EMS Diasum, <a href="#">Cat # 15740-04</a> (or comparable)	RT
100% deionized formamide 	ThermoFisher, <a href="#">AM9342</a> or VWR, <a href="#">VWRV0606</a> (or comparable)	4°C (bring to RT before opening)
20X SSC (DNase, RNase free)	Sigma-Aldrich, <a href="#">S6639</a>	RT
Proteinase K (recommended)  or Leica Biosystems Enzyme Pretreat Kit	Ambion, <a href="#">2546</a> Leica Biosystems, <a href="#">AR9951</a> <b>Note:</b> Using proteinase K from any other supplier will require optimization of timing and concentration.	-20°C 4°C
1X Tris-EDTA pH 9.0	eBioscience™ IHC Antigen Retrieval Solution - High pH, <a href="#">00-4956-58</a> (10X - will need to be diluted with DEPC-treated water)	4°C
Tris base	Sigma-Aldrich, <a href="#">10708976001</a> (or comparable)	RT
Glycine	Sigma-Aldrich, <a href="#">G7126</a> (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 <a href="#">(see Table 5)</a> for compatible heat-sealing foil)	Thermo Fisher	<a href="#">AB-1443A</a>
Heatblock or thermal cycler <b>Note:</b> ensure that this is compatible with hybridization plate used (see the Materials tables)	Various, such as <a href="#">Bio-Rad C1000 deep-well model</a>	Various, such as <a href="#">1851197</a>
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	<a href="#">72.785.005</a>
Permeable membrane (dry-down seal)	Sigma	<a href="#">A9224</a>
Eppendorf 96-well twin.tec PCR Plates, semi-skirted, 250 µl	Fisher Scientific	<a href="#">E951020346</a>
Heat-sealing foil seals	Fisher Scientific	<a href="#">AB-0559</a>