

## Equipment, Materials, & Reagents for RNA nCounter Assays on GeoMx™ DSP

See the tables below for information on equipment, materials, and reagents needed for GeoMx RNA slide preparation and nCounter readout preparation. Separate lists are included for manual slide prep and for Leica Biosystems autostainer slide prep. This information is also available under **Support Documents** at [www.nanostring.com/GeoMxDSP](http://www.nanostring.com/GeoMxDSP)).

### EQUIPMENT

The following pieces of equipment are recommended for the GeoMx DSP workflow but are not provided by NanoString.

Table 1: Equipment not provided by NanoString.

Stage	Equipment	Manufacturer	Part Numbers
General	Baking oven	Quincy Lab, Inc. (or comparable)	<a href="#">Various GC models</a>
	Hybridization oven including hybridization chamber*: Boekel Scientific RapidFISH Slide Hybridizer <b>or</b>	<a href="#">Boekel Scientific</a>	<a href="#">240200 for 120V or 240200-2 for 230V</a>
	HybEZ II Hybridization System <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> * 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.	<a href="#">ACDBio</a>	321710/321720 310012 321717 321716 310025

Stage	Equipment	Manufacturer	Part Numbers
	Please contact NanoString with any concerns.		
	Water bath (up to at least 37°C)	Various	Various
(optional)	UV Light Box	VWR	<a href="#">Various</a>
<b>MANUAL Slide Prep only</b>	TintoRetriever Pressure Cooker <b>Note:</b> A TintoRetriever Pressure Cooker is recommended for this protocol. Other alternatives may be acceptable, but have not been validated by NanoString and will require optimization. Any model used needs to have a temperature gauge. The TintoRetriever is rated for <b>110V</b> ; a <b>transformer is required for 220V</b> .	<a href="#">BioSB</a>	<a href="#">BSB 7008</a>
<b>LEICA Slide Prep only</b>	BOND RX or RX <sup>m</sup> Compact, Fully Automated Advanced Stainer	<a href="#">Leica Biosystems</a>	<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>
<b>nCounter Readout</b>	Vortex	Various	Various
	Picofuge	Various	Various
	ALPS 50 plate sealer (see Materials list ( <a href="#">see Table 2</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 list for <a href="#">nCounter Readout on page 4</a> ).	Various, such as <a href="#">Bio-Rad C1000 deep-well model</a>	Various, such as <a href="#">1851197</a>
	Plate spinner/centrifuge (up to at least 2000 g)	Various	Various

## MATERIALS

The following materials are recommended for the GeoMx DSP workflow but are not provided by NanoString.

Table 2: Materials not provided by NanoString.



Stage	Materials	Manufacturer	Part Numbers
<b>General</b>	Pipettes for 5–1,000 µL	Various	Various
	12-channel P20 multi-channel pipetter	Various	Various
	Filter Tips (RNase/DNase free)	Various	Various
	Microtubes	Sarstedt (or comparable)	<a href="#">72.785.005</a>
	SuperFrost Plus microscopic slides	Fisher Scientific (or comparable)	<a href="#">12-550-15</a>
	Tissue-Tek Staining 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 hyb 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 Biolabs	<a href="#">714022</a>
	RNase AWAY	ThermoFisher	<a href="#">7003PK</a>
<b>MANUAL Slide Prep only</b>	Heat/cold protectant handling glove	Various	Various
<b>LEICA Slide Prep only</b>	BOND Research Detection System (includes 6x 30 mL Open Containers)	Leica Biosystems	<a href="#">DS9455</a>
	BOND Titration Kit	Leica Biosystems	<a href="#">OPT9049</a>

Stage	Materials	Manufacturer	Part Numbers
	(includes 50 inserts)		
	BOND Universal Covertiles	Leica Biosystems	<a href="#">S21.2001</a>
	BOND Open Containers 30 mL (if needed)	Leica Biosystems	<a href="#">OP309700</a>
	BOND Titration Container Inserts (if needed)	Leica Biosystems	<a href="#">OPT9179</a>
<b>nCounter Readout</b>	Permeable membrane (dry-down seal, optional)	Sigma	<a href="#">A9224</a>
	Eppendorf 96-Well twin.tec PCR Plates, semi-skirted, 250 µl  <b>or</b> 96-well plate (compatible with most thermocyclers)	Fisher Scientific	<a href="#">Cat. No. E951020346</a>  <a href="#">BC2496</a>
	96 well plate stickers (freezing and storing plates)	Various	Various
	Heat-sealing foil seals	Fisher Scientific	<a href="#">AB-0559</a>

**REAGENTS**

The following reagents are recommended for the GeoMx DSP workflow but are not provided by NanoString.

Table 3: Reagents not provided by NanoString.

Stage	Reagent	Source/ Part Number	Storage
<b>General</b>	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, 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> <b>or</b> 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	Ambion, <a href="#">2546</a> , <b>or</b> Thermo Fisher, <a href="#">AM2548</a> <b>Note:</b> Do not use ProK from other vendors.	-20°C  -20°C
	Tris base	Sigma, <a href="#">10708976001</a> (or comparable)	RT
	Glycine	Sigma, <a href="#">G7126</a> (or comparable)	RT
<b>MANUAL Slide Prep only</b>	Citrisolv <b>or</b> Xylene	Fisher Scientific, <a href="#">Cat # 04-355-121</a> Sigma Aldrich, <a href="#">SKU 183164-</a>	RT

Stage	Reagent	Source/ Part Number	Storage
		<a href="#">100ML or 183164-500ML</a> (or comparable)	
	100% ethanol (EtOH): ACS grade or better	Various	RT
	1X Tris-EDTA	eBioscience™ IHC Antigen Retrieval Solution - High pH, <a href="#">00-4956-58</a> (10X - will need to be diluted with DEPC-treated water)	RT
	10% Tween 20	Teknova, <a href="#">T0710</a> (or comparable)	RT
	Proteinase K	Ambion, <a href="#">2546</a> , or Thermo Fisher, <a href="#">AM2548</a>	-20°C
		<b>Note:</b> Do not use ProK from other vendors.	-20°C
<b>LEICA Slide Prep only</b>	BOND Dewax Solution – 1 L	Leica Biosystems, <a href="#">AR9222</a>	4°C or RT
	BOND Epitope Retrieval 2 - 1 L	Leica Biosystems, <a href="#">AR9640</a>	4°C
	BOND Wash Solution 10X Concentrate – 1 L	Leica Biosystems, <a href="#">AR9590</a>	4°C
	Leica Biosystems Enzyme Pretreat Kit (RNA only) or Proteinase K (recommended)	Leica Biosystems, <a href="#">AR9951</a> Ambion, <a href="#">2546</a>	4°C -20°C
		<b>Note:</b> Do not use ProK from other vendors.	

**FOR RESEARCH USE ONLY. Not for use in diagnostic procedures**

© 2019 NanoString Technologies, Inc. All rights reserved.

NanoString, NanoString Technologies, the NanoString logo, nCounter, and GeoMx are trademarks or registered trademarks of NanoString Technologies, Inc., in the United States and/or other countries.