



# **Saphyr Site Preparation: User Supplied Material Checklist for SP-G2 DNA Isolation and DLS-G2 DNA Labeling protocol**

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A

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## Revision History

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REVISION	NOTES
A	Initial release.

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## Introduction

This checklist is intended to confirm that a customer looking to get trained on the Bionano SP-G2 DNA Isolation workflows for Blood, Cell Pellet and BMA as well as the DLS-G2 DNA Labeling workflow has all required and/or recommended user-supplied materials and equipment. The wet lab contact at the site is required to go through the checklist and order/procure any outstanding items. Upon receipt of outstanding items, user is required to check the 'Present' box in each row corresponding to the relevant sample type/protocol and return the completed checklist to the Bionano Field Application Scientist.

Please note that new customer onsite training will be scheduled only upon the completion and submission of this signed form. Please list the wet lab contact(s), as well as any other contact(s) who will oversee this process to facilitate communication.

Please complete only the sections relevant to the type(s) of starting material(s) that you expect to be trained on. Should you have questions on a specific item(s) in the list, or on which sections you should complete, please contact your Bionano Field Application Scientist or [support@bionano.com](mailto:support@bionano.com) to discuss.

### Site Details and Points of Contact

Institution name	Address	e-mail address & phone number

Point of Contact Dept.	Name	E-mail address

# User Supplied Material and Equipment for SP-G2 DNA Isolation Protocols

## Common to all Bionano SP-G2 DNA Isolation Protocols

Item	Supplier	Catalog	Item Present
-20 °C freezer	General lab supplier		<input type="checkbox"/>
-80 °C freezer	General lab supplier		<input type="checkbox"/>
4 °C refrigerator	General lab supplier		<input type="checkbox"/>
DynaMag™-2 Magnet*	Thermo Fisher	12321D	<input type="checkbox"/>
HulaMixer™ Sample Mixer*	Thermo Fisher	15920D	<input type="checkbox"/>
Microcentrifuge Tubes, 2 ml, Nuclease Free	Fisher Scientific	05-408-138	<input type="checkbox"/>
Microcentrifuge Tubes, 5 ml, Nuclease Free	Eppendorf	0030119487	<input type="checkbox"/>
Ethanol, 200 Proof, Molecular Biology Grade	Sigma-Aldrich	E7023	<input type="checkbox"/>
Isopropanol (IPA), ≥ 99.5%, Molecular Biology Grade	Fisher Scientific	A461-212 (new part# 327270010)	<input type="checkbox"/>
Conical Centrifuge Tubes, 50 mL, PP	Fisher Scientific	14-432-22	<input type="checkbox"/>
Centrifuge with 1.5 ml Tube Rotor (2,200 x g spin); (Refrigeration at 4°C needed for Fresh Cells Protocol)	Cole Palmer or Equivalent	EW-17701-11	<input type="checkbox"/>
Ice Bucket and Ice	General Lab Supplier		<input type="checkbox"/>
Eppendorf ThermoMixer® C & Eppendorf SmartBlock™ 1.5 mL, Thermoblock set to 55°C (Or 55°C heat block for 1.5ml tubes or water bath as alternatives)	Eppendorf or Equivalent	5382000023, 5360000038	<input type="checkbox"/> <input type="checkbox"/>
Pointed Forceps	Electron Microscopy Sciences or Equivalent	78141-01	<input type="checkbox"/>
Wide-Bore Pipette Tips, Filtered, Aerosol, 200 µl	USA Scientific or Fisher Scientific (Labcon)	1011-8810, 1152-965- 008-9	<input type="checkbox"/>
Filtered Extra Long 1000 µl Tips, Sterile	VWR or Equivalent	76322-154	<input type="checkbox"/>
Pipettes (10, 20, 200, and 1,000 µl) and Nuclease Free, Filtered Pipette Tips	General Lab Supplier		<input type="checkbox"/>
Sterile 5- and 10-ml Disposable Pipettes (TD+)	General Lab Supplier		<input type="checkbox"/>
Aluminum Cooling Block for 1.5 ml and 2 ml (optional)	Sigma Aldrich or Equivalent	Z743497	<input type="checkbox"/>
<b>Day 2 - Quantitation</b>			
Bath Sonicator (optional)	General Lab Supplier		<input type="checkbox"/>
Benchtop Vortexer	VWR or Equivalent	10153-838	<input type="checkbox"/>
Positive-Displacement Pipette MR-10	Rainin or Equivalent	17008575	<input type="checkbox"/>
Pipette Tips, 10 ul, C-10 for Pos. Displ. Pipette	Rainin or Equivalent	17008604	<input type="checkbox"/>
Qubit™ Assay Tubes*	Thermo Fisher	Q32856	<input type="checkbox"/>
Qubit™ 4 Fluorometer*	Thermo Fisher	Q33216 (new part number Q33238)	<input type="checkbox"/>
Qubit™ BR (Broad Range) dsDNA Assay Kit*	Thermo Fisher	Q32853	<input type="checkbox"/>
Conical Centrifuge Tubes, 15 ml, PP	Fisher Scientific	05-539-12	<input type="checkbox"/>

\*(Item in blue) We strongly encourage not substituting this equipment and getting the exact item recommended, as using this will give the most successful outcome from the workflow.

### SP-G2 Frozen Human BMA and Frozen Human Blood Protocol

Item	Supplier	Catalog	Item Present
HemoCue® WBC Analyzer*	Fisher Scientific (for US) Distributor (outside US)	22-601-017	<input type="checkbox"/>
HemoCue® Microcuvettes*	Fisher Scientific	22-601-018	<input type="checkbox"/>
Water Bath, 37°C	General Lab Supplier		<input type="checkbox"/>
Parafilm	General Lab Supplier		<input type="checkbox"/>

\*(Item in blue) We strongly encourage not substituting this equipment and getting the exact item recommended, as using this will give the most successful outcome from the workflow.

### SP-G2 Fresh Human Blood Protocol

Item	Supplier	Catalog	Item Present
HemoCue WBC Analyzer*	Fisher Scientific (for US) Distributor (outside US)	22-601-017	<input type="checkbox"/>
HemoCue Microcuvettes*	Fisher Scientific	22-601-018	<input type="checkbox"/>
Test Tube Rocker	VWR or Equivalent	10159-754	<input type="checkbox"/>
Parafilm	General Lab Supplier		<input type="checkbox"/>

\*(Item in blue) We strongly encourage not substituting this equipment and getting the exact item recommended, as using these will give the most successful outcome from the workflow.

### SP-G2 Fresh Cell Pellet Protocol

Item	Supplier	Catalog	Item Present
Hemocytometer & Phase Contrast Microscope or Automated Cell Counter	General Lab Supplier		<input type="checkbox"/>
Centrifuge with a Swinging Bucket Rotor for 15 ml Conical Tubes to Concentrate Cells From Media (2,200 x g spin)	General Lab Supplier		<input type="checkbox"/>
Cell Culture Media	General Lab Supplier		<input type="checkbox"/>
Water Bath, 37°C	General Lab Supplier		<input type="checkbox"/>

### SP-G2 Frozen Cell Pellet Protocol

Item	Supplier	Catalog	Item Present
Cryopreservation Box (for 1.5 ml microcentrifuge tubes)	General Lab Supplier		<input type="checkbox"/>
Water Bath, 37°C	General Lab Supplier		<input type="checkbox"/>

## User Supplied Material and Equipment for DLS-G2 DNA Labeling Protocol

Item	Supplier	Catalog	Item Present
HulaMixer Sample Mixer	Thermo Fisher	15920D	<input type="checkbox"/>
Thermocycler with heated lid*	General Lab Supplier		<input type="checkbox"/>
PCR tubes, 0.2 ml, thin-walled, flat cap, nuclease-free	Thermo Fisher or equivalent	AM12225	<input type="checkbox"/>
Microcentrifuge tubes, 0.5 ml, Amber, nuclease-free	USA Scientific or equivalent	1605-0007	<input type="checkbox"/>
Pipet tips, wide bore, filtered, 200 µl	USA Scientific or Fisher Scientific (Labcon)	1011-8810, 1152-965-008-9	<input type="checkbox"/>
Pipet tips, standard, filtered; 2, 10, 20 and 200 µl	General lab supplier		<input type="checkbox"/>
-20°C benchtop enzyme cooler	VWR or equivalent	414004-286	<input type="checkbox"/>
4°C aluminum cooling tube block	Sigma Aldrich or equivalent	Z740270	<input type="checkbox"/>
Forceps, pointed and curved	Electron Microscopy Sciences or equivalent	78141-01	<input type="checkbox"/>
Pipets (2, 10, 20 and 200 µl)	General Lab Supplier		<input type="checkbox"/>
Ice bucket and Ice	General Lab Supplier		<input type="checkbox"/>
Benchtop Vortexer	VWR or Equivalent	10153-838	<input type="checkbox"/>
Microcentrifuge for 0.2, 0.5-, and 1.5-ml Tubes	General Lab Supplier		<input type="checkbox"/>
Qubit 4 Fluorometer	Thermo Fisher	Q33238	<input type="checkbox"/>
Qubit® Assay Tubes	Thermo Fisher	Q32856	<input type="checkbox"/>
Qubit® HS (High Sensitivity) dsDNA Assay Kit	Thermo Fisher	Q32851	<input type="checkbox"/>
Bath sonicator (optional)	Branson or equivalent	CPX 952-119R	<input type="checkbox"/>
Positive-displacement pipet MR-10 (recommended)**	Rainin or equivalent	17008575	<input type="checkbox"/>
Pipet tips, 10 µl, C-10 for pos. displacement (recommended)**	Rainin or equivalent	17008604	<input type="checkbox"/>

\*(Item in blue) We strongly encourage not substituting this equipment and getting the exact item recommended, as using these will give the most successful outcome from the workflow.

\*Thermocyclers with either lid temperature regulation or the option to turn lid heating on/off are acceptable for our workflow.

\*\*A positive displacement pipette is a special pipette with a plunger that operates a built-in piston in special tips that go with the pipette. Such a pipette and tips are highly effective in accurately pipetting and dispensing small volumes of viscous liquids, and therefore are highly recommended to be used while aliquoting Ultra High Molecular Weight DNA isolated using Bionano's protocols.



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## Note on Disposal of Hazardous Waste

Buffers Digestion Enhancer, LBB and WB1 provided in Bionano's SP-G2 DNA Isolation kits contain guanidine hydrochloride (GuHCl). GuHCl is harmful if swallowed or inhaled and causes skin and eye irritation. DO NOT mix with bleach or acidic reagents. Liquid waste containing GuHCl should be safely decontaminated with a quaternary ammonium disinfectant before disposal in a hazardous waste stream. We recommend following local environmental, health and safety regulations for decontamination and disposal of all solutions mixed with GuHCl.

Bionano's DNA Isolation Protocols also generate biological waste. Please follow your institution's guidelines for disposal of such biological and/or infectious waste.

## Acknowledgement

By signing below, I declare that the information provided is accurate, in fact and form, to the best of my knowledge.

I understand that the success of the onsite training on the Bionano workflow depends on the possession of all required user-supplied materials and equipment.

Finally, I acknowledge that I have read the note on disposal of hazardous waste.

**Customer Representative name, job title (printed):**

Signature:

Date:

Comments:

**Bionano FAS name (printed):**

Signature:

Date:

Comments:

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## Technical Assistance

For technical assistance, contact Bionano Genomics Technical Support.

You can retrieve documentation on Bionano products, SDS's, certificates of analysis, frequently asked questions, and other related documents from the Support website or by request through e-mail and telephone.

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TYPE	CONTACT
Email	<a href="mailto:support@bionano.com">support@bionano.com</a>
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