

A large, vertical, metallic DNA double helix structure is positioned on the left side of the page, extending from the top to the bottom.

Site Preparation Guide

Axiom[®] 2.0 Assay Automated Workflow

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Equipment and Supplies Required for the Axiom® 2.0 Assay Automated Workflow

This site preparation guide includes the supplier and part number information for the equipment, software, reagents, arrays, labware and other consumables that have been validated for use with the Affymetrix® Axiom® 2.0 Assay Automated Workflow.

Information on suppliers of the equipment and supplies is listed in [Appendix A, Supplier Contact List](#) on page 21.

Affymetrix Equipment, Software, Reagents and Arrays Required

Table 1.1 Affymetrix Equipment, Software, Reagents and Arrays Required

✓	Item	Part Number
Equipment		
□	GeneTitan® Multi-Channel Instrument*	Contact Affymetrix, Inc.
Software		
□	GeneChip® Command Console® (AGCC)	version 3.1 or later
□	Genotyping Console	version 4.1 or later
Reagents		
□	Axiom® 2.0 Reagent Kit	901758 (96 reactions)
Arrays		
Axiom® Genotyping Solution Array Plates:		
□	Please visit www.affymetrix.com for a complete list of array plates available for use with the Axiom® 2.0 Assay.	
Consumables		
□	Each Axiom® GeneTitan® Consumables Kit contains the following labware for each array plate:	901606
	<ul style="list-style-type: none"> □ 1 Hyb Tray □ 1 Scan Tray with top cover and protective base □ 5 Stain Trays with top covers These trays are required for processing Axiom array plates on the GeneTitan® Multichannel Instrument.	
	NOTE: Consumables are included with the Axiom Genome-Wide BOS and Pan-African Genotyping Bundles.	

* For a complete list of all equipment and supplies required for GeneTitan Instrument installation and operation, please consult the Affymetrix GeneTitan Multi-Channel Instrument Site Prep Guide (PIN 08-0305).

Table 1.1 Affymetrix Equipment, Software, Reagents and Arrays Required (Continued)

✓	Item	Part Number
Training Modules Available		
□	Axiom® 2.0 Assay Training Module for CEU Arrays	901767
□	Axiom® 2.0 Assay Training Module for ASI Arrays	901768
□	Axiom® 2.0 Assay Training Module for CHB Arrays	901770
□	Axiom® 2.0 Assay Training Module for EUR Arrays	901771
□	Axiom® 2.0 Assay Training Module for BOS Arrays	901750
	Each Kit Includes:	
	<ul style="list-style-type: none"> ■ Two Genome-Wide 96-Array Plates for specific array plate types listed above (96-array plates), except for BOS which includes 1 CEU Array Plate and 1 BOS Array Plate. ■ Two Axiom® 2.0 Reagent Kits (96 reactions) ■ One full plate of 96 HapMap DNA samples ■ One half plate of 48 HapMap DNA samples* (Not supplied in the non-human training modules) ■ One quarter plate of 24 HapMap DNA samples (Not supplied in the non-human training modules) ■ One Zerostat Anti-Static Gun 	
□	Axiom® 2.0 Pan-African Training Module	901769
	Each Kit Includes:	
	<ul style="list-style-type: none"> ■ One Axiom Genome-Wide Pan-African Genotyping Bundle (1 set of 96-array plates, 3 Axiom 2.0 Reagent Kits, and 3 Axiom GeneTitan Consumables Kits) ■ Three identical 96 HapMap DNA plates ■ One Zerostat Anti-Static Gun 	
□	Axiom 2.0 Target Prep Express Templates Kit	901768
	Note: Available for the Axiom 2.0 Assay automated target prep only, and is to be ordered by the Affymetrix FAS prior to beginning training.	

*For non-human Axiom arrays, you must provide your own positive control that meets the genomic DNA requirements specified by the Array Plates and Reagent Replacement Policy.

Related Affymetrix Documentation

- *Affymetrix® GeneTitan® MultiChannel Instrument User's Guide*, P/N 08-0306
- *Affymetrix® GeneTitan® MultiChannel Instrument Site Preparation Guide*, P/N 08-0305
- *Affymetrix® GeneChip® Command Console® 3.1 User Manual*, P/N 702569
- *Affymetrix® Genotyping Console™ 4.1 User Manual*, P/N 702982
- *Axiom® 2.0 Assay Automated Workflow User Guide*, P/N 702963
- *Axiom® 2.0 Assay Automated Target Prep Protocol QRC*, P/N 702962
- *Axiom® 2.0 Assay Manual Workflow User Guide*, P/N 702990
- *Axiom® 2.0 Assay Manual Workflow Site Prep Guide*, P/N 702991
- *Axiom® 2.0 Assay Manual Target Prep Protocol QRC*, P/N 702989
- *Axiom® 2.0 gDNA Sample Prep Protocol QRC*, P/N 702987
- *Axiom® Genotyping Solution Analysis Guide*, P/N 702961
- *GeneTitan® MC Protocol for Axiom 2.0 Array Plate Processing QRC*, P/N 702988
- *Axiom® gDNA Sample Prep for Axiom Genome-Wide BOS 1 Array Plate QRC*, P/N 702975

Beckman Coulter Equipment, Software, and Labware

Equipment

The Biomek® FX^P Target Prep Express (P/N A83103) is required to run the Axiom® 2.0 Assay with the automated target preparation. This workstation includes the accessories, software and deck configuration listed in Table 1.2. For information on upgrading a Biomek liquid handler already at your site, contact Beckman Coulter. In addition to this workstation, the components listed in Table 1.3 on page 7 are also required.

Table 1.2 Biomek FX^P Target Prep Express Required for Running the Axiom® 2.0 Assay Automated Workflow

✓	Biomek FX ^P Target Prep Express	Quantity	Beckman Coulter P/N
□	Biomek FX ^P Target Prep Express The part number for this workstation includes the components listed below.	1	A83103
■	Biomek FX ^P Dual Multichannel Span-8	1	A31844
■	Automation Controller XP, Biomek system software and monitor	1	A16170
■	Packaged Tip Loader	1	719356
■	Span-8 Disposal ALP	1	719590
■	Disposable Tip Hardware Kit - 8 pk	1	A39380
■	BFX 96-channel Disp, Tip Head, 200U	1	719368
■	Pkg Static ALP Platform	4	719357
■	4 X 3 ALP Kit	1	719948
■	Biomek Target Prep Express Peltier Adaptor Kit, consists of:		A94077
□	Adaptor, Deep well Plate (P/N A83050)		
□	24 position Tube Block (P/N A83054)		
□	Flat Peltier Adaptor		
	Integrated Solutions Components Ref Quote 14202A	1	
■	Integrated Solution – Class 5 Peltier ALP Biomek FX ^P v3.3 Integration - 1 unit or	1	969125
■	Static Peltier ALP Kit	1	A93938
■	Integrated Solution – Class 7 Peltier Shaking ALP FX ^P v3.3 Integration - 1 unit or	1	969126
■	Shaking Peltier ALP Kit	1	A93942
■	Integrated Solution – Class 2 Special Lid Cover - 2 units	1	
■	Required: Integrated Solution – Class 5 Biometra TRobot FX ^P v3.3 Integration - 1 unit	1	969125
□	BFXP to BTPE Upgrade	1	A86713
□	Arrayplex to BTPE Upgrade	1	A86714



NOTE: The thermal cycler for the Biomek® FX^P Target Prep Express must be purchased separately. Beckman Coulter will provide the services for integrating the thermal cycler on to the deck of the Biomek FX^P Target Prep Express. The Warranty and service for the thermal cycler must be purchased separately from the manufacturer/distributor of the thermal cycler.

Table 1.3 Additional Components Required to Run the Axiom® 2.0 Assay Automated Workflow

✓	Item	Supplier	Part Number
☐	Frame for modular reagent reservoirs (listed below)	Beckman Coulter	372795
☐	Arched Auto-Sealing Lids With Wide Tabs	Bio-Rad	MSL-2032
☐	Microseal 'P' Replacement Pads	Bio-Rad	MSP-1003
☐	Tube Rack, 24-position, with 11 mm tube insert	Beckman Coulter	373661 (rack) 373696 (insert)

Related Beckman Coulter Documentation

- *Biomek® Liquid Handler User's Manual*, Beckman Coulter P/N 987834
- *Biomek® FX Laboratory Automation Workstation Preinstallation Manual*, Beckman Coulter P/N 719450, rev AH
- *Biomek® Software User's Manual*, Beckman Coulter P/N 987835
- *Setup Guide & User's Manual Biometra TRobot on Biomek FX* Revision C, 05/24/2010

Labware Required for the Biomek FX^P Target Prep Express

The labware required to run the Axiom® 2.0 Assay Automated Workflow on the Biomek FX^P Target Prep Express is listed in [Table 1.4](#). Photographs of the labware are provided in [Table 1.5](#) on page 8.



NOTE: The tips and universal labware for the Biomek FX^P that is available from Beckman is also available as a single sales kit. The sales kit (P/N A87508) contains lab-ware sufficient for processing 10 array plates. The labware can be ordered as individual cases from the Beckman eStore.

Table 1.4 Labware for the Biomek FX^P Target Prep Express

✓	Item	Quantity Required 96-Array Plate Run*	Supplier	Part Number
Pipette Tips, barrier, 96 tips/rack				
☐	Biomek Span P50, pre-sterile, barrier	96 tips	Beckman Coulter	A21586
☐	Biomek AP96, P250, pre-sterile, barrier	384 tips		717253
☐	Biomek Span P250, pre-sterile, barrier	67 tips		379503
☐	Biomek Span P1000, pre-sterile, barrier, conductive	172 tips		987925
Plates				
☐	Bio-Rad Hard Shell 96-well	10	Bio-Rad	HSP9631
☐	Beckman Deep Well Titer, polypropylene	2	Beckman Coulter	267007
☐	ABgene® 96 Square Well Storage Plate Mark II, 2.2 mL	1	Thermo Scientific	AB-0932
☐	Plate, OD for UV spec, 96-well	1	E & K Scientific	EK-25801

* For Pipette tips, the Quantity Required column lists the total number of tips required and not the number of racks.

Table 1.4 Labware for the Biomek FX^P Target Prep Express (Continued)

✓	Item	Quantity Required 96-Array Plate Run*	Supplier	Part Number
	Reservoirs, modular for reagents			
□	Half module, 75 mL capacity	3	Beckman Coulter	372786
□	Quarter module, 40 mL capacity	12		372790
□	Quarter module, divided by width, 19 mL capacity	4		372792

Photographs of the Labware Required

The photographs in [Table 1.5](#) are provided to help visualize the labware required on the Biomek FX^P Target Prep Express to run the automated target preparation portion of the Axiom® 2.0 Assay Automated Workflow.

Table 1.5 Labware Used on the Biomek Workstation Deck

Labware	Supplier and Part Number	Labware Image
Biomek AP96 – P250 Pipette Tips (aqua box; pre-sterile, barrier)	Beckman Coulter P/N 717253	
Biomek Span P1000 Pipette Tips (yellow box; pre-sterile, barrier, conductive)	Beckman Coulter P/N 987925	

Table 1.5 Labware Used on the Biomek Workstation Deck (Continued)

Labware	Supplier and Part Number	Labware Image
<p>Biomek Span P250 Pipette Tips (green box; pre-sterile, barrier)</p>	<p>Beckman Coulter P/N 379503</p>	
<p>Biomek Span P50 Pipette Tips (pink box; pre-sterile, barrier)</p>	<p>Beckman Coulter P/N A21586</p>	
<p>BIO-RAD Hard Shell 96-well plate (available in multiple colors)</p>	<p>BIO-RAD P/N HSP9631</p>	
<p>Lid, metal (arched, auto-sealing with P pads)</p>	<p>BIO-RAD P/N MSL-2032 and P Pad P/N: MSP-1003</p>	<p>Front view</p>  <p>Side view</p> 

Table 1.5 Labware Used on the Biomek Workstation Deck (Continued)

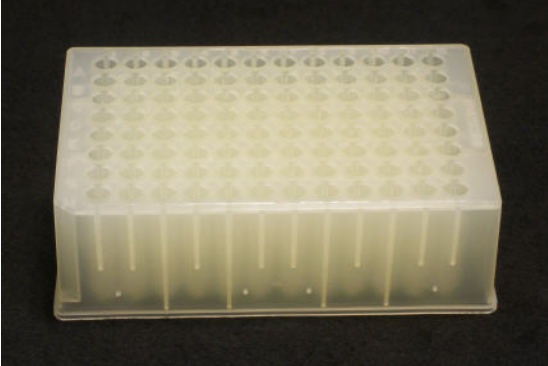

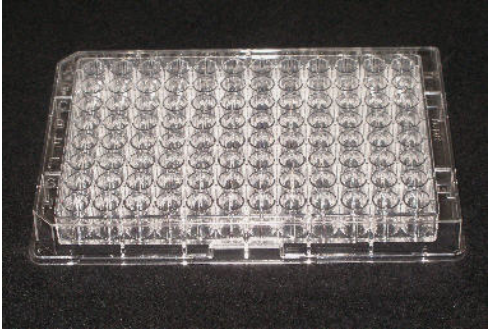
Labware	Supplier and Part Number	Labware Image
Beckman Deep Well Titer Plate (polypropylene)	Beckman Coulter P/N 267007	
ABGene 96 Square Well Storage Plate (2.2 mL)	Thermo Scientific P/N AB-0932	
OD Plate, UV	E & K Scientific EK-25801	

Table 1.5 Labware Used on the Biomek Workstation Deck (Continued)

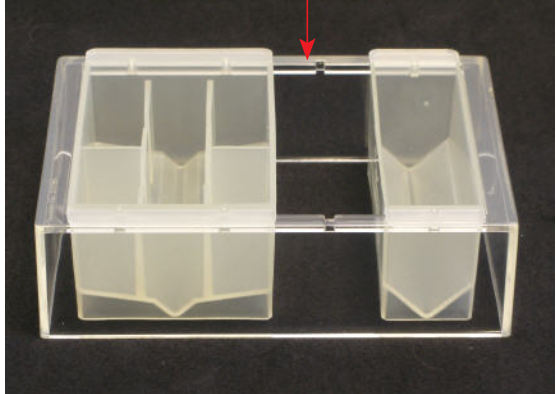
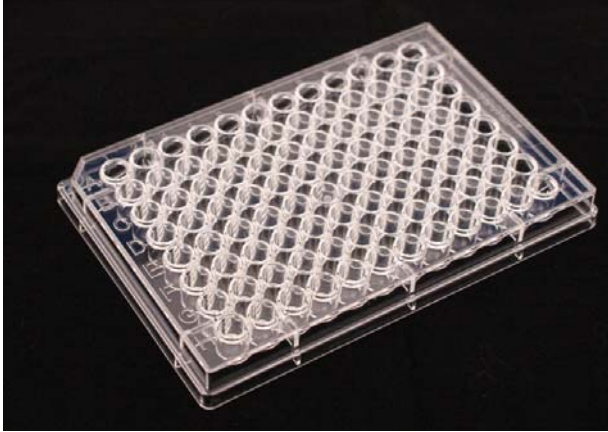

Labware	Supplier and Part Number	Labware Image
Frame for Reservoirs	Beckman Coulter P/N 372795	
Plate, Costar Brand Serocluster round bottom plate from Corning <input type="checkbox"/> Note: this consumable is required if using an off-deck ABI 9700 or ABI 2720 thermal cycle	VWR International P/N 29442-392 E&K Scientific EK 680568 Corning Mfg PN 3795	
Hard-Shell Full-Height 96-Well Semi-Skirted PCR Plate required only if using off-deck ABI 2720 or ABI 9700 Thermal cyclers	Bio-Rad HSS-9601	

Table 1.5 Labware Used on the Biomek Workstation Deck (Continued)



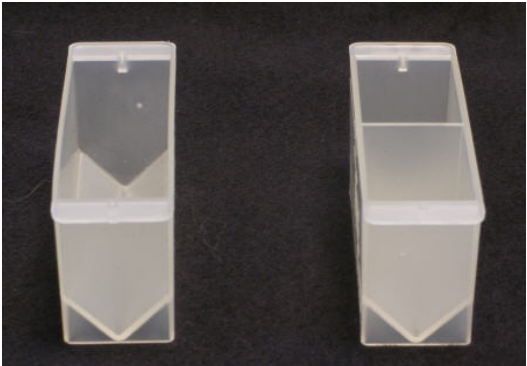
Labware	Supplier and Part Number	Labware Image	
<p>The ABI 9700 and the ABI 2720 use the semi-skirted 96-well plates (PN HSS-9601) stacked on a Costar brand Serocluster 96-well Round Bottom Microtitration plate as shown in the figure below. A 96-well semi skirted PCR plate stacked on a Costar Branded Round Bottom 96 well plate.</p>			
<p>Half Reservoir Half module, 75 mL capacity</p>	<p>Beckman Coulter P/N 372786</p>		
<p>Quarter Reservoirs</p> <ul style="list-style-type: none"> ■ Quarter module, 40 mL capacity ■ Quarter module divided by width, 19 mL capacity each receptacle 	<p>Beckman Coulter P/N 372790 (40 mL) P/N 372792 (19 mL)</p>	<p>Undivided 40 mL capacity</p>	<p>Divided by width 19 mL capacity</p>
			

Table 1.5 Labware Used on the Biomek Workstation Deck (Continued)

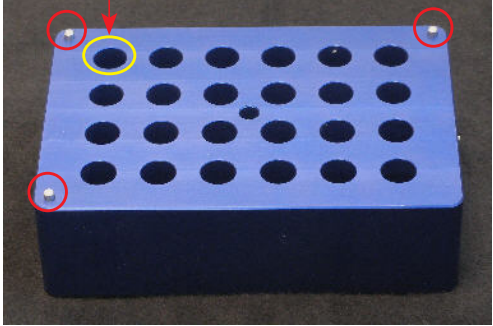
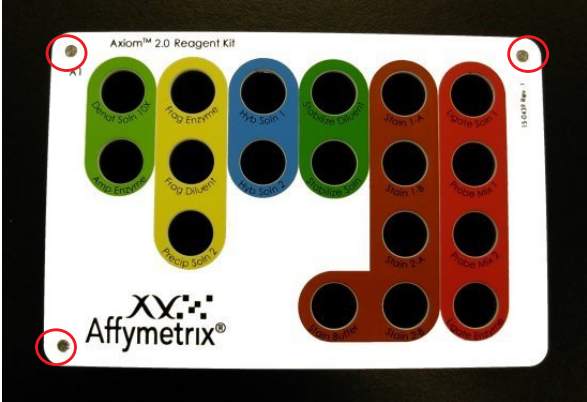
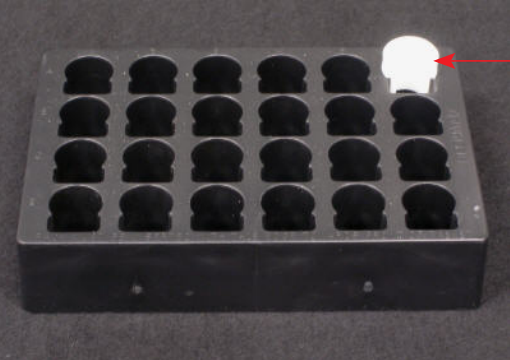
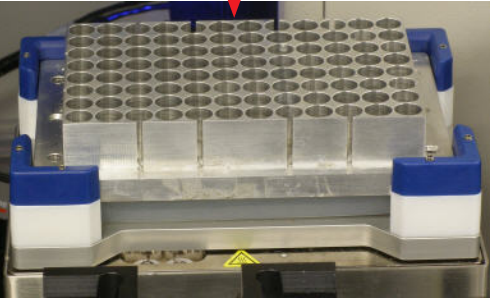
Labware	Supplier and Part Number	Labware Image
Reagent block, chilled to 4°C	Beckman Coulter P/N A83054	<p data-bbox="1029 321 1446 348">A1 Metal posts on block circled in red.</p> 
Reagent block template (designed specifically for use with the Axiom Genotyping Reagent Kit)	Contact Affymetrix	<p data-bbox="915 741 1419 789">Template on reagent block. Metal posts on block circled in red.</p> 
24-Position Tube Rack with one 11 mm tube insert in position A6.	Beckman Coulter P/N 373661 (rack) P/N 373696 (insert)	 <p data-bbox="1390 1262 1511 1310">Tube insert A6</p>

Table 1.5 Labware Used on the Biomek Workstation Deck (Continued)

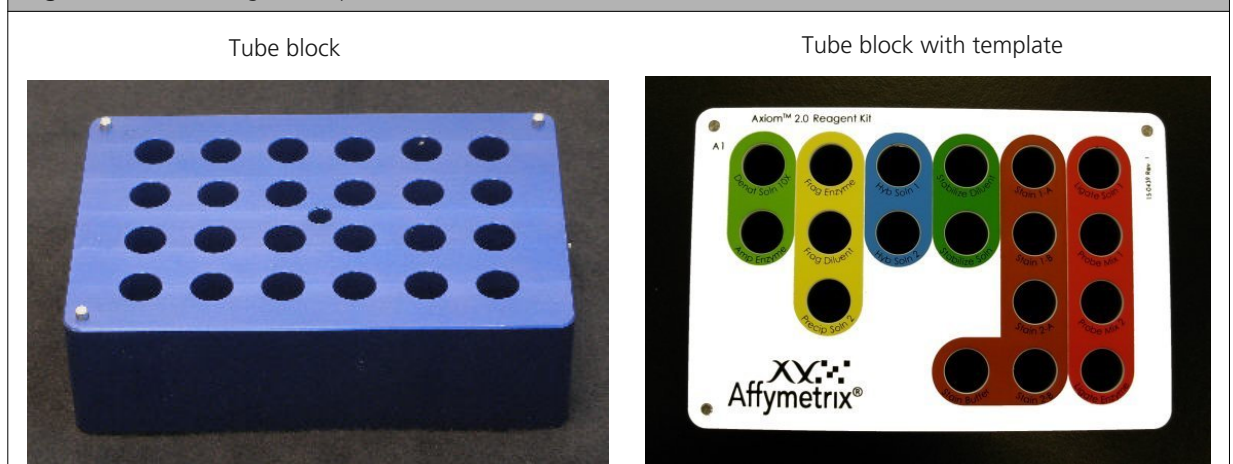
Labware	Supplier and Part Number	Labware Image
<p data-bbox="151 310 573 367">Adaptor, Deep Well Plate (installed on the Shaking Peltier)</p> <p data-bbox="151 422 573 590">This adaptor is typically installed by a Beckman Coulter field service technician during new system installation or a system upgrade. Ensure that you have one of these adaptors on the deck prior to running this assay.</p>	<p data-bbox="597 310 922 367">Beckman Coulter P/N A83050</p>	<p data-bbox="1011 321 1336 352">The metal block is the adaptor.</p> 

Axiom® 2.0 Target Prep Express Templates Kit

The Tube Block and Reservoir Frames templates are provided in the Axiom 2.0 Target Prep Express Templates Kit (P/N 901766) and are ordered by your Affymetrix FAS prior to beginning training. These templates are only used with the Automatic Target Prep protocol.

Tube Block Template

The Axiom 2.0 Reagent Kit tube block template was designed to fit precisely onto the top of the Beckman Coulter Tube Block (P/N A83054). It is held in place by the metal posts on the block (Figure 1.1). Using this template will help ensure the proper placement of reagent tubes onto the block for each method.

Figure 1.1 Axiom Reagent Template for Tube Block

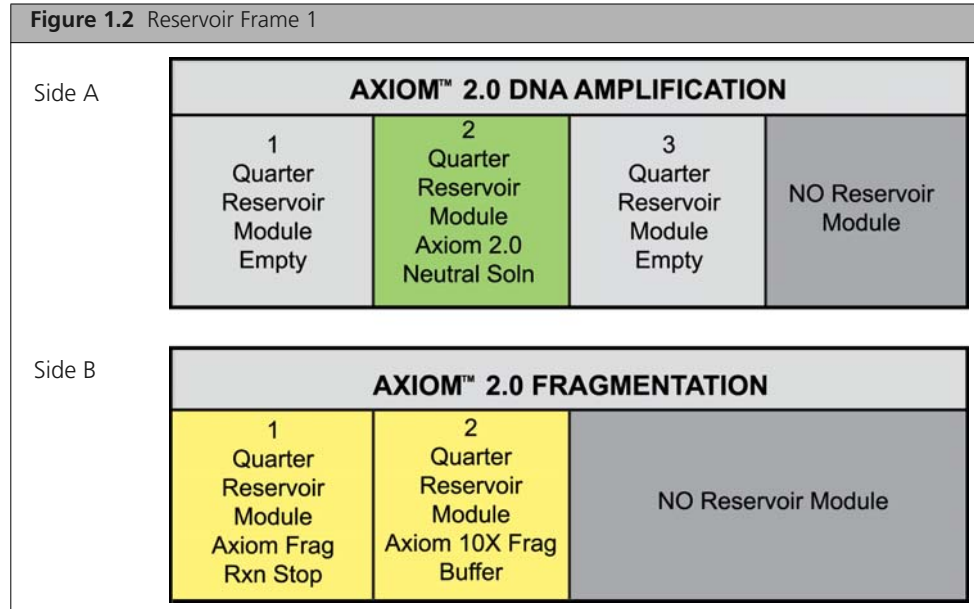
Reservoir Labels

The reservoir labels are stick-on labels for the modular reagent reservoir frames (used at different stages in the automated workflow) and are provided in the Axiom® 2.0 Target Prep Express Templates Kit. These stick-on labels are color-coded to match the colors found on the caps of the reagent tubes in the Axiom 2.0 Reagent Kit. Using these labels helps ensure the proper placement of reservoirs and reagents for each method.

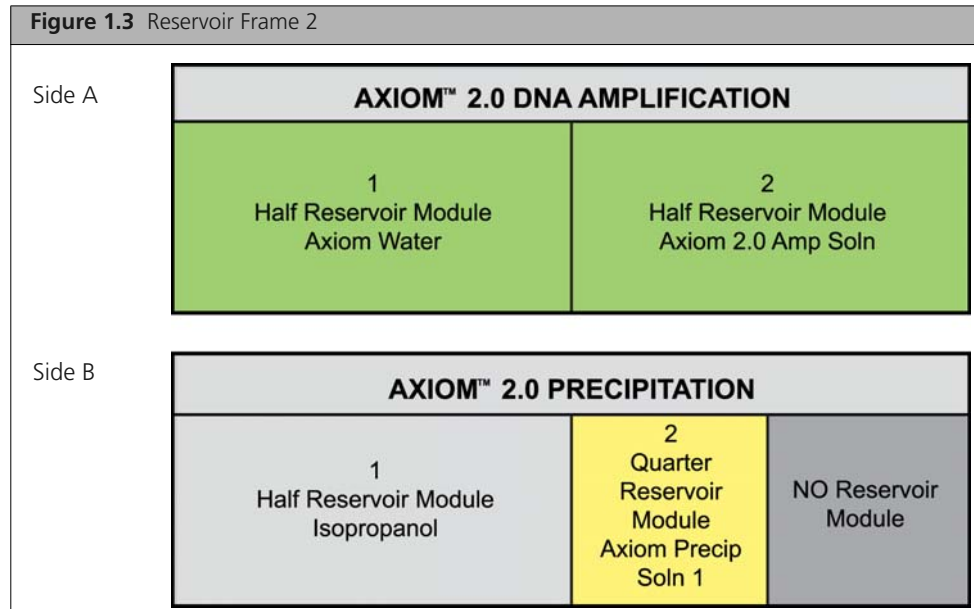
There are four reservoir holders used in the Axiom 2.0 method. Three of these will have templates on two sides and the remaining reservoir holder will have a template on one side for a total of 7 templates.

Remove the protective surface from the back of the label and place on the reservoir frames as directed in the Figure 1.2 through Figure 1.5.

Reservoir Frame 1



Reservoir Frame 2



Reservoir Frame 3

Figure 1.4 Reservoir Frame 3

Side A	AXIOM™ 2.0 RESUSPENSION, HYBRIDIZATION & QC			
	1 Quarter Reservoir Module Axiom Resusp Buffer	2 Quarter Reservoir Module Axiom Hyb Buffer	3 Quarter Reservoir Module Empty	4 (Back) Module Gel-Diluent 4 (Front) Module Water
Side B	AXIOM™ 2.0 GENETITAN® PREPARATION			
	1 Quarter Reservoir Module Axiom Hold Buffer	2 Quarter Reservoir Module Axiom Wash A	3 Quarter Reservoir Module Empty	NO Reservoir Module

Reservoir Frame 4

Figure 1.5 Reservoir Frame 4

Side A	AXIOM™ 2.0 GENETITAN® PREPARATION			
	1 (Back Module) Axiom Water	2 (Back Module) Empty	3 (Back Module) Axiom Ligase Buffer	NO Reservoir Module
1 (Front Module) Empty	2 (Front Module) Empty	3 (Front Module) Empty		

Other Equipment, Consumables and Reagents Required**Pre-Amplification Area**

Precautions are required when manipulating genomic DNA to avoid contamination with foreign DNA amplified in other reactions and procedures. It is recommended that genomic DNA manipulations are performed in a dedicated pre-amplification room or area separate from the main laboratory.

This pre-amplification area should have a dedicated set of pipettes and plasticware. If no dedicated area is available, use of a dedicated bench or a dedicated biosafety hood and dedicated pipettes is suggested. If no dedicated bench or biosafety hood is available, a set of dedicated pipettes is recommended.

Oven Requirements for Automated Target Prep

We recommend using the ED 53 Binder oven listed in [Table 1.6](#). If another oven is used, it must be able to maintain a constant temperature of 37 °C for at least 24 hr, and have a temperature accuracy of +/- 1°C.

Table 1.6 Ovens Required for the Axiom 2.0 Assay Automated Target Prep

✓	Item	Supplier	Part Number
□	Oven: Required if processing more than 3 array plates per week.		
■	ED 53 drying oven by Binder	VWR	50/60 Hz, 115 V, 1200W VWR P/N 47746-744 Mfg P/N 9010-0131
			50/60 Hz, 230 V, 1200 W VWR P/N 47746-690 Mfg P/N 9010-0078
	Optional — for low throughput of 3 or fewer array plates per week:		
■	GeneChip® Hybridization Oven 645*	Affymetrix	00-0331

*The GeneChip® Hybridization Oven 640 is currently not supported with the Axiom 2.0 Assay; however, if you want to utilize it in the workflow please contact your Field Service Engineer (FSE) or Affymetrix Technical Support regarding the compatibility of this oven with the Axiom 2.0 Assay.

Spectrophotometer

We recommend using one of the spectrophotometers listed in [Table 1.7](#).

Table 1.7 Spectrophotometers

✓	Item	Supplier	Part Number
□	One of the following spectrophotometers:		
■	DTX 880 Multimode Detector, with:	Beckman Coulter	987921 – detector
□	Genomic Filter Slide	Beckman Coulter	A30184 – filter slide
	or		
■	SpectraMax High throughput Microplate Spectrophotometer	Molecular Devices	Plus384

Thermal Cyclers

We have verified the performance of this assay using the Bio-Rad DNA Engine and Biometra TRobot 96 on the Beckman Biomek Target Prep Express liquid handler. We have also verified the performance of this assay using the following off-deck thermal cyclers in their 96-well block configurations:

- BioRad/MJ DNA Engine PTC-200
- Biometra TRobot 96
- ABI 9700 (with a gold, silver or aluminum block)
- ABI 2720
- BioRad/MJ DNA Engine Tetrad® 2 PTC-0240G

The performance of this assay has not been verified with other thermal cyclers. Use of other thermal cyclers may result in assay failure and may violate the Axiom Array and Reagent replacement policy.

Plate Centrifuge

One plate centrifuge is required for the Axiom® 2.0 Assay Automated Workflow. We recommend the plate centrifuges listed in Table 1.8. When centrifuging and drying pellets, the centrifuge must be able to spin down plates at:

- rcf: 3200 x g with an appropriate rotor - bucket combination (4000 RPM for the Eppendorf 5810R configuration described below)
- temperature: 4 °C

In addition, the bottom of the rotor buckets should be soft rubber to ensure that the deep well plates do not crack. Do not use buckets where the plates sit directly on a metal or hard plastic bottom. For the Eppendorf 5810R, do not use the A-4-62 rotor with a WO-15 plate carrier (hard bottom).

Table 1.8 Plate Centrifuges Recommended for the Axiom® 2.0 Assay Automated Workflow

✓	Item	Supplier	Part Number
□	One of the following centrifuges:		
■	Allegra® 25R Refrigerated Benchtop Centrifuge	Beckman Coulter	369434 (60 Hz, 280 V) 369435 (50/60 Hz, 200 V) 369436 (50 Hz, 230 V) 368954 S5700 Microplate rotor
■	Centrifuge 5810R (refrigerated)	Eppendorf	022625501 (60 Hz, 120 V) 022625101 (50 Hz, 120 V, 20 AMP version) 022625551 (50 Hz, 230 V)
□	A-4-81 MTP/Flex swinging bucket rotor with 4 microtest-plate buckets		022638807
■	Sorvall® Legend® XTR (refrigerated), with:	Thermo Scientific	75004521 (60 Hz, 120 V) 75004520 (50 Hz, 230 V) 75004523 (50/60 Hz, 230 V USA and Canada)
□	TX-750 high visibility swinging rotor bucket		75003607
□	Carrier for microplates (including plate trays and neoprene pads)		One of either: ■ Set of two Carriers (75003795) ■ Set of four carriers (75003617)

Relative centrifugal force (*rcf*) can be calculated as follows:

$$rcf = (1.118 \times 10^{-5}) R S^2$$

where R is the radius of the rotor in centimeters, and S is the speed of the centrifuge in revolutions per minute.

Other Common Lab Equipment Required

Table 1.9 Other Equipment Required

✓	Item	Supplier	Part Number
☐	Freezer, -20°C	Any vendor	—
☐	Refrigerator, 2 to 8 °C	Any vendor	—
☐	Vortex-Genie® (for plates and microtubes)*	Scientific Industries	SI-0236 (120 V/60 Hz) SI-0246 (230 V/50 Hz)
☐	Mini Microcentrifuge, for 2 mL tubes*	VWR	93000-196 (120V) 93000-196 (230V)
☐	Bel-Art Cryo-Safe Mini Cooler, -15 °C *	VWR	47751-730
☐	Ice bucket, 4 to 9 liters	Any vendor	—

* Equivalent items from other manufacturers are acceptable.

Other Reagents and Gels Required

Table 1.10 Other Reagents Required

✓	Item	Supplier	Part Number
☐	2-Propanol, anhydrous, 99.5% (Isopropanol)	Sigma-Aldrich	278475
☐	Reduced EDTA TE Buffer (10 mM Tris-HCl pH 8.0, 0.1 mM EDTA)	Affymetrix	75793

Table 1.11 Reagents and Gels Required to Run QC Steps

✓	Item	Supplier	Part Number
☐	Mother E-Base™ Device	Life Technologies™ (formerly Invitrogen)	EB-M03
☐	Daughter E-Base™ Device		EB-D03
☐	E-Gel® 48 4% agarose gels (for Axiom QC)		G8008-04
☐	TrackIt™ 25 bp DNA Ladder (for Axiom QC)		10488-022
☐	TrackIt™ Cyan/Orange Loading Buffer (for Axiom QC)		10482-028
☐	E-Gel® 48 1% agarose gels (for gDNA QC)		G8008-01
☐	RediLoad™ (for gDNA QC)		750026
☐	E-Gel® 96 High Range DNA Marker (for gDNA QC)		12352-019
☐	Water, nuclease-free, ultrapure MB grade (only required for performing rehybridization protocols and gel QC)	Affymetrix	71786

Pipettes and Tips

Pipettes and tips recommended for performing the gel QC steps in the Axiom® 2.0 Assay Automated Workflow are listed in [Table 1.12](#).

Table 1.12 Pipettes and Tips

✓	Item	Supplier	Part Numbers	
	The following single or multichannel pipettes are required:		Single Channel	Multichannel
□	Pipette, 0.5–10 µL	Rainin	L-10	L12-10
□	Pipette, 2–20 µL	Rainin	L-20	L12-20
□	Pipette tips, LTS filter	Rainin	GP-L10F	GP-L10F

Other Consumables Required

Table 1.13 Consumables Required

✓	Item	Supplier	Part Number
□	Adhesive film for 96-well plates – use one of the following:		
	▪ MicroAmp® Clear Adhesive Film	Applied Biosystems	4306311
	▪ Microseal 'B' Film	Bio-Rad	MSB1001
□	Kimwipes®	Your choice	—
□	Markers, permanent, fine point	Your choice	—

Supplier Contact List

Table A.1 Supplier Contact List

Supplier	Web Site Address
Affymetrix	www.affymetrix.com
Applied Biosystems	www.appliedbiosystems.com
Beckman Coulter	www.beckmancoulter.com
Bio-Rad	bio-rad.com
E&K Scientific	eandkscientific.com
Eppendorf	eppendorf.com
Life Technologies (Invitrogen)	www.lifetechnologies.com
Rainin	www.rainin.com
Scientific Industries	www.scientificindustries.com
Sigma-Aldrich	www.sigmaaldrich.com
TEKnova	www.teknova.com
Thermo Scientific	www.thermofisher.com
USB Corporation (Affymetrix)	www.usb.affymetrix.com
VWR	vwr.com
Biometra	www.biometra.com