# BloodPrep™ Chemistry

## **Quick Reference Card**

## DNA Isolation from Fresh and Frozen Blood, Tissue Culture Cells, and Buccal Swabs on the ABI PRISM™ 6100 Nucleic Acid PrepStation

A WARNING Biological samples have the potential to transmit infectious disease. For safety and biohazard guidelines, please refer to the "Safety" section in the DNA Isolation from Fresh and Frozen Blood, Tissue Culture Cells, and Buccal Swabs Protocol, P/N 4343586. Follow specific safety practices when using this instrument. For all chemicals in **bold** type below, please read the MSDS, and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

#### Isolation of DNA from Fresh or Frozen Whole Blood

## nnlaa

#### Prepare samples

- Pipette 15 μL of Proteinase K Solution (20 mg/mL) in 2-mL microcentrifuge tubes or deep well plates.
- 2. Add 85 μL of **PK Digestion** buffer.
- Add 150 μL of blood to the digestion buffer and Proteinase K mixture.
- 4. Mix thoroughly by pipetting up and down 3 times.



#### Lyse whole blood

- Incubate mixture at 58 °C for 10 min. Do not allow temperature to exceed 60 °C.
- Add 500 μL of BloodPrep DNA Purification Solution to generate a total of 750 μL.

Note: If necessary, gently heat **BloodPrep DNA Purification Solution** to 37 °C for 5–10 min to dissolve precipitated salts.

- Mix the blood and BloodPrep DNA Purification Solution thoroughly by pipetting up and down 5 times.
- Optional. Store the lysed samples at 4 ° C. If crystallization of salts is observed after storage, gently heat these samples for 5–10 min to 37 ° C and then gently vortex.



## Perform purification run

- Set up the appropriate purification protocol for the 6100 Workstation.
- 2. Pipette blood lysate samples into purification tray.
- 3. Start the run.

## Isolation of DNA from Tissue Culture Cells

# 1

## Prepare samples

- Remove the cells from the tissue culture media.
  - For adherent cells, remove the tissue culture media from all wells by aspiration.
  - For suspension cells, pellet the media by centrifugation and remove the supernatant by aspiration.
- For plasma, serum, and cerebrospinal fluid samples:
  - Pellet the cells by centrifugation following your standard laboratory procedures.
  - 2. Remove the supernatant by aspiration.



### Lyse tissue culture cells

 Add 200–650 μL of BloodPrep DNA Purification Solution into each well of the appropriate 96-well plate.
 Do not exceed 650 μL in volume.

Note: If necessary, gently heat **BloodPrep DNA Purification Solution** to 37 °C for 5–10 min to dissolve precipitated salts.

- Mix the cells and BloodPrep DNA Purification Solution thoroughly by vortexing for 20 sec to 1.0 min, or by pumping the mixture with a pipette at least 5 times.
- Optional. Store the lysed samples at 4 ° C. If crystallization of salts is observed after storage, gently heat these samples for 5–10 min to 37 ° C and then gently vortex.



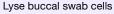
## Perform purification run

- 1. Set up the appropriate purification protocol for the 6100 PrepStation.
- 2. Pipette tissue lysate samples into purification tray.
- 3. Start the run.

### Isolation of DNA from Buccal Swabs

## Prepare samples

 Perform the buccal scrape by following your standard laboratory procedure.



1. Swirl the swab in a 2-mL microcentrifuge tube containing 800 μL of BloodPrep DNA Purification Solution for 30 sec to 1.0 min.

Note: If necessary, gently heat **BloodPrep DNA Purification Solution** to 37 °C for 5–10 min to dissolve precipitated salts.

- Remove the swab, retaining as much liquid as possible in the microcentrifuge tube.
- 3. Pipette swab samples into the appropriate 96-well plate.
- Optional. Store the lysed samples at 4 °C. If crystallization of salts is observed after storage, gently heat these samples for 5–10 min to 37 °C and then gently vortex.



### Perform purification run

- Set up the appropriate purification protocol for the 6100 Workstation.
- 2. Pipette buccal lysate samples into purification tray.
- 3. Start the run.

#### **Reagents and Consumables**

Item	Part Number	Item	Part Number	Item	Part Number
96-Well Deep-well plate	4308641	BloodPrep <sup>™</sup> DNA Purification Solution	4342775	Proteinase K Solution (20 mg/mL)	4333793
96-Well Optical Reaction Plate with Barcode	4306737	BloodPrep <sup>™</sup> DNA Wash Solution	4342949	Splash Guard	4311758
Archive Tray Covers	4306286	BloodPrep™ PK Digestion Buffer	4342777	300-μL, flat-bottom, 96-well cell culture plate	MLSa
BloodPrep <sup>™</sup> DNA Elution Solution 1	4342951	Genomic DNA Purification Tray II	4330172	Ethanol, 70%	MLS
BloodPrep <sup>™</sup> DNA Elution Solution 2	4342950	Microcentrifuge tubes, 2 mL	4305936	Water, molecular biology grade	MLS

a.Major Laboratory Supplier



# DNA Isolation from Fresh and Frozen Blood, Tissue Culture Cells, and Buccal Swabs on the ABI PRISM<sup>™</sup> 6100 Nucleic Acid PrepStation (continued)

▲ WARNING
Biological samples have the potential to transmit infectious disease. For safety and biohazard guidelines, please refer to the "Safety" section in the DNA Isolation from Fresh and Frozen Blood, Tissue Culture Cells, and Buccal Swabs Protocol, P/N 4343586. Follow specific safety practices when using this instrument. For all chemicals in **bold** type below, please read the MSDS, and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves.

STEP	ACTION	Lysate Preparation from Fresh or Frozen Whole Blood
1	Prepare samples	<ul> <li>a. Pipette 15 μL of Proteinase K Solution (20 mg/mL) into 2-mL microcentrifuge tubes or deep well plates. Note: If blood is &lt;24 hrs old, add the samples directly to tubes with Proteinase K Solution and proceed to step 2b.</li> <li>b. Add 85 μL of PK Digestion buffer.</li> <li>c. Add 150 μL of blood to the digestion buffer and Proteinase K mixture. Note: If using animal blood, use suggested volumes in Protocol, P/N 4343586.</li> <li>d. Mix thoroughly by pipetting up and down 3 times.</li> </ul>
2	Lyse whole blood	<ul> <li>a. Incubate mixture at 58 ° C for 10 min. IMPORTANT! Temperatures in excess of 60 ° C may cause degradation of isolated DNA and reduce activity of the Proteinase K.</li> <li>b. Add 500 μL of BloodPrep DNA Purification Solution to generate a total of 750 μL. IMPORTANT! The BloodPrep DNA Purification Solution may require gentle heating to 37 ° C for 5–10 min to dissolve precipitated salts.</li> <li>c. Mix the blood and BloodPrep DNA Purification Solution thoroughly by pipetting up and down 5 times. IMPORTANT! The incubated blood sample mixture and purification solution must be thoroughly mixed with the pipette before proceeding, because vortexing does not effectively mix the viscous samples and the Proteinase K solution, no matter how long you vortex.</li> <li>d. Optional. If you cannot proceed with purification immediately, store the lysed samples at 4 ° C. If crystallization of salts is observed after storage, gently heat these samples for 5–10 min to 37 ° C and then gently vortex.</li> </ul>
STEP	ACTION	Lysate Preparation from Tissue Culture Cells
1	Prepare samples	Remove the cells from the tissue culture media.  • For adherent cells, remove the tissue culture media from all wells by aspiration.  • For suspension cells, pellet the media by centrifugation and remove the supernatant by aspiration.  Note: For plasma, serum, and cerebrospinal fluid samples, pellet the cells by centrifugation following your standard laboratory procedures, and remove the supernatant by aspiration.
2	Lyse cells	<ul> <li>a. Add 200–650 μL of BloodPrep DNA Purification Solution into each well of the appropriate 96-well plate. Note: Do not exceed 650 μL in volume unless the sample is extremely viscous. If viscous, reduce the sample input volume or increase the volume of BloodPrep DNA Purification Solution appropriately. IMPORTANT! The BloodPrep DNA Purification Solution may require gentle heating to 37 °C for 5–10 min to dissolve precipitated salts.</li> <li>b. Mix the cells and BloodPrep DNA Purification Solution thoroughly by vortexing for 20 sec to 1.0 min, or by pumping the mixture with a pipette at least 5 times.</li> <li>c. Optional. If you cannot proceed with purification immediately, store the lysed samples at 4 °C. If crystallization of salts is observed after storage, gently heat these samples for 5–10 min to 37 °C and then gently vortex.</li> </ul>
STEP	ACTION	Lysate Preparation from Buccal Swab Cells
1	Prepare samples	Perform the buccal scrape by following your standard laboratory procedure.
2	Lyse cells	<ul> <li>a. Swirl the swab in a 2-mL microcentrifuge tube containing 800 μL of BloodPrep DNA Purification Solution for 30 sec to 1.0 min.</li> <li>IMPORTANT! The BloodPrep DNA Purification Solution may require gentle heating to 37 °C for 5–10 min to dissolve precipitated salts.</li> <li>b. Remove the swab, retaining as much liquid as possible in the microcentrifuge tube.</li> <li>c. Pipette swab samples into the purification tray.</li> <li>d. Optional. If you cannot proceed with purification immediately, store the lysed samples at 4 °C. If crystallization of salts is observed after storage, gently heat these samples for 5–10 min to 37 °C and then gently vortex.</li> </ul>

DNA Isolation from Fresh and Frozen Blood, Tissue Culture Cells, and Buccal Swabs on the ABI PRISM<sup>™</sup> 6100 Nucleic Acid PrepStation (continued)

STEP	ACTION	Total D	NA Purification of Blood, Tissue Culture	Cells, or Bu	ıccal Cells l	Jsing the 610	00 PrepSta	ition
1	Set up the 6100	Set up the DNA purification parameters for the blood sample on the protocol tab of the 6100 PrepStation software:						
	PrepStation for blood samples	Step	Description	Volume (μL)	Position	Incubation (sec)	Vacuum (%)	Time (sec)
	samples	Note: Tape over empty wells of the purification tray with adhesive tape or an adhesive tray cover, or pre-wet all empty wells with 50 µL of <b>BloodPrep DNA Purification Solution</b> to ensure even vacuum. Position the carriage with the purification tray over the 6100 waste station.						
		1	Load Samples <sup>a</sup>	650	Waste	0	80	300
		2	Add BloodPrep DNA Purification Solutiona	650	Waste	0	80	400
		3	Add BloodPrep DNA Wash Solution	650	Waste	0	80	60
		4	Add BloodPrep DNA Wash Solution	600	Waste	0	80	60
		5	Add BloodPrep DNA Wash Solution	300	Waste	0	80	60
		6	Pre-Elution Vacuum	-	Waste	0	100	120
		7	Touch Off	-	Waste	_	-	_
		8	BloodPrep DNA Elution Solution 1b	100	Collection	180	60	120
		9	BloodPrep DNA Elution Solution 2 <sup>c</sup>	100	Collection	0	60	120
		10	Touch Off	-	Collection	_	-	_
	Set up the	c.It is ve the DN follow t	emain equal. ry important that you use the elution solutions in A on the membrane for 3 minutes to ensure max to give the correct pH for DNA storage.	the correct o imum yield. T	rder. <b>Elution (</b> hen an equal	<b>Solution 1</b> mus volume of Eluti	et be incubat on Solution	ted with 2 must
	Set up the 6100 PrepStation				ratagal tab af	the C100 Dranc	tation ooffu	
	6100 PrepStation	Set up tr	ne DNA purification parameters for the blood san	volume	rotocol tab of	the 6100 PrepS Incubation	Station softw Vacuum	/are: Time
	6100 PrepStation for tissue culture or buccal swab	Step Note: empty	Description Tape over empty wells of the purification tray wit wells with 50 µL of BloodPrep DNA Purificatior	Volume (μ <b>L)</b> h adhesive ta	<b>Position</b> pe or an adhe	Incubation (sec)	Vacuum (%)	Time (sec)
	6100 PrepStation for tissue culture or buccal	Step Note: empty the pur	<b>Description</b> Tape over empty wells of the purification tray with wells with 50 μL of <b>BloodPrep DNA Purification</b> rification tray over the waste station	Volume (μL) h adhesive ta n Solution to	<b>Position</b> pe or an adhe ensure even v	Incubation (sec) sive tray cover, acuum. Positio	Vacuum (%) or pre-wet n the carria	Time (sec) all ge with
	6100 PrepStation for tissue culture or buccal swab	Step Note: empty the pur	Description  Tape over empty wells of the purification tray wit wells with 50 µL of BloodPrep DNA Purification rification tray over the waste station  Load Samples <sup>a</sup>	Volume (μL) h adhesive ta n Solution to	Position pe or an adhe ensure even v  Waste	Incubation (sec) sive tray cover, acuum. Positio	Vacuum (%) or pre-wet n the carriag	Time (sec) all ge with
	6100 PrepStation for tissue culture or buccal swab	Step Note: empty the pui 1	Description  Tape over empty wells of the purification tray wit wells with 50 µL of BloodPrep DNA Purification rification tray over the waste station  Load Samples a  Add BloodPrep DNA Purification Solution	Volume (μL) h adhesive ta n Solution to 650	Position pe or an adhe ensure even v  Waste  Waste	Incubation (sec) sive tray cover, acuum. Positio	Vacuum (%) or pre-wet in the carrias 80 80	Time (sec) all ge with 300
	6100 PrepStation for tissue culture or buccal swab	Step Note: empty the pure 1 2 3	Description  Tape over empty wells of the purification tray wit wells with 50 µL of BloodPrep DNA Purification rification tray over the waste station  Load Samples <sup>a</sup> Add BloodPrep DNA Purification Solution  Add BloodPrep DNA Wash Solution	Volume (μL) h adhesive ta n Solution to 650 650	Position pe or an adhe ensure even v  Waste  Waste  Waste  Waste	Incubation (sec) sive tray cover, acuum. Positio  0 0 0	Vacuum (%) or pre-wet in the carria 80 80 80	Time (sec) all ge with 300 300
	6100 PrepStation for tissue culture or buccal swab	Step Note: empty the put 1 2 3 4	Description  Tape over empty wells of the purification tray wit wells with 50 µL of BloodPrep DNA Purification rification tray over the waste station  Load Samples <sup>a</sup> Add BloodPrep DNA Purification Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution	Volume (μL) h adhesive ta n Solution to  650 650 650 650	Position pe or an adhe ensure even v  Waste Waste Waste Waste Waste Waste	Incubation (sec) sive tray cover, acuum. Positio  0 0 0 0	Vacuum (%) or pre-wet in the carriag 80 80 80 80	Time (sec) all ge with 300 300 60
	6100 PrepStation for tissue culture or buccal swab	Step Note: empty the put 1 2 3 4 5	Description  Tape over empty wells of the purification tray with wells with 50 µL of BloodPrep DNA Purification rification tray over the waste station  Load Samples   Add BloodPrep DNA Purification Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution	Volume (μL) h adhesive ta n Solution to 650 650	Position pe or an adhe ensure even v  Waste Waste Waste Waste Waste Waste Waste	Incubation (sec) sive tray cover, acuum. Positio  0 0 0 0 0	Vacuum (%) or pre-wet in the carriage 80 80 80 80 80 80	Time (sec) all ge with 300 300 60 60
	6100 PrepStation for tissue culture or buccal swab	Step Note: empty the put 1 2 3 4 5	Description Tape over empty wells of the purification tray witl wells with 50 µL of BloodPrep DNA Purification rification tray over the waste station  Load Samples <sup>a</sup> Add BloodPrep DNA Purification Solution Add BloodPrep DNA Wash Solution Add BloodPrep DNA Wash Solution Add BloodPrep DNA Wash Solution Pre-Elution Vacuum	Volume (μL) h adhesive ta n Solution to  650 650 650 650	Position pe or an adheensure even v  Waste	Incubation (sec) sive tray cover, acuum. Positio  0 0 0 0	Vacuum (%) or pre-wet in the carriag 80 80 80 80	Time (sec) all ge with 300 300 60
	6100 PrepStation for tissue culture or buccal swab	Step Note: empty the put 1 2 3 4 5 9 10	Description  Tape over empty wells of the purification tray wit wells with 50 µL of BloodPrep DNA Purification rification tray over the waste station  Load Samples a  Add BloodPrep DNA Purification Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution  Pre-Elution Vacuum  Touch Off	Volume (μL) h adhesive ta n Solution to 650 650 650 600 300 -	Position pe or an adhe ensure even v  Waste	Incubation (sec) sive tray cover, acuum. Positio  0 0 0 0 0 0 0 -	Vacuum (%) or pre-wet in the carriage 80 80 80 80 80 100	Time (sec) all ge with 300 300 60 60 120
	6100 PrepStation for tissue culture or buccal swab	Step Note: empty the put 1 2 3 4 5 9 10 11	Description  Tape over empty wells of the purification tray with wells with 50 µL of BloodPrep DNA Purification rification tray over the waste station  Load Samples <sup>a</sup> Add BloodPrep DNA Purification Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution  Pre-Elution Vacuum  Touch Off  BloodPrep DNA Elution Solution 1 <sup>b</sup>	Volume (μL) h adhesive ta n Solution to 650 650 650 650 600 300 - 100	Position pe or an adhe ensure even v  Waste Waste Waste Waste Waste Waste Waste Waste Collection	Incubation (sec) sive tray cover, acuum. Positio  0 0 0 0 0 0 - 180	Vacuum (%) or pre-wet in the carriage 80 80 80 80 80 100 - 60	Time (sec) all ge with 300 60 60 120 - 120
	6100 PrepStation for tissue culture or buccal swab	Step Note: empty the put 1	Description  Tape over empty wells of the purification tray wit wells with 50 µL of BloodPrep DNA Purification rification tray over the waste station  Load Samples a  Add BloodPrep DNA Purification Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution  Pre-Elution Vacuum  Touch Off	Volume (μL) h adhesive ta n Solution to 650 650 650 600 300 -	Position pe or an adheensure even v Waste Waste Waste Waste Waste Waste Waste Collection Collection	Incubation (sec) sive tray cover, acuum. Positio  0 0 0 0 0 0 0 -	Vacuum (%) or pre-wet in the carriage 80 80 80 80 80 100	Time (sec) all ge with 300 300 60 60 120
	6100 PrepStation for tissue culture or buccal swab	Step Note: empty the purification of the purif	Description  Tape over empty wells of the purification tray with wells with 50 μL of BloodPrep DNA Purification rification tray over the waste station  Load Samples <sup>a</sup> Add BloodPrep DNA Purification Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution  Pre-Elution Vacuum  Touch Off  BloodPrep DNA Elution Solution 1 <sup>b</sup> BloodPrep DNA Elution Solution 2 <sup>c</sup> Touch Off  attes with volumes in excess of 650 μL, use the Clation tray membrane, operating vacuum at 80% for seed to step 1 of the purification protocol. If the set the vacuum setting to 100% and repeat the step to volume is between 75 μL and 200 μL in a standard yields of DNA. The total elution volume may be emain equal.  Ty important that the elution solutions are used in A on the membrane for 3 minutes to ensure max	Volume (µL) h adhesive ta n Solution to 650 650 650 600 300 - 100 100 - Quick Run fea or 180 secs. I e well starts to ep. ard PCR micr lowered to 75 n the correct of	Position pe or an adheensure even v Waste Waste Waste Waste Waste Waste Waste Collection Collection Collection ture to pull 65 Repeat until or o evacuate slo	Incubation (sec) sive tray cover, acuum. Position  0 0 0 0 0 0 0 - 180 0 - 180 0 - 0 µL aliquots one aliquot remain volumes belot olumes of Eluti	Vacuum (%) or pre-wet in the carriage 80 80 80 80 100 - 60 60 - flysate acrosins to be addition Solution st be incuba	Time (sec) all ge with 300 300 60 60 120 - 120 - 120 coss the ded and tions, alt in and atted with
	6100 PrepStation for tissue culture or buccal swab samples	Step Note: empty the purification of the purif	Description  Tape over empty wells of the purification tray with wells with 50 μL of BloodPrep DNA Purification rification tray over the waste station  Load Samples a  Add BloodPrep DNA Purification Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution  Pre-Elution Vacuum  Touch Off  BloodPrep DNA Elution Solution 1 <sup>b</sup> BloodPrep DNA Elution Solution 2 <sup>c</sup> Touch Off  attes with volumes in excess of 650 μL, use the Cation tray membrane, operating vacuum at 80% forceed to step 1 of the purification protocol. If the set he vacuum setting to 100% and repeat the station tray membrane for 3 μL and 200 μL in a standard yields of DNA. The total elution volume may be emain equal.  Ty important that the elution solutions are used in A on the membrane for 3 minutes to ensure max to give the correct pH for DNA storage.	Volume (µL) h adhesive ta n Solution to 650 650 650 600 300 - 100 100 - Quick Run fea or 180 secs. I e well starts to ep. ard PCR micr lowered to 75 n the correct of	Position pe or an adheensure even v Waste Waste Waste Waste Waste Waste Waste Collection Collection Collection ture to pull 65 Repeat until or o evacuate slo	Incubation (sec) sive tray cover, acuum. Position  0 0 0 0 0 0 0 - 180 0 - 180 0 - 0 µL aliquots one aliquot remain volumes belot olumes of Eluti	Vacuum (%) or pre-wet in the carriage 80 80 80 80 100 - 60 60 - flysate acrosins to be addition Solution st be incuba	Time (sec) all ge with 300 300 60 60 120 - 120 - 120 - uss the ded an tions, alt in 1 and ated with
2	6100 PrepStation for tissue culture or buccal swab	Step Note: empty the purification of the purif	Description  Tape over empty wells of the purification tray with wells with 50 μL of BloodPrep DNA Purification rification tray over the waste station  Load Samples <sup>a</sup> Add BloodPrep DNA Purification Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution  Add BloodPrep DNA Wash Solution  Pre-Elution Vacuum  Touch Off  BloodPrep DNA Elution Solution 1 <sup>b</sup> BloodPrep DNA Elution Solution 2 <sup>c</sup> Touch Off  attes with volumes in excess of 650 μL, use the Clation tray membrane, operating vacuum at 80% for seed to step 1 of the purification protocol. If the set the vacuum setting to 100% and repeat the step to volume is between 75 μL and 200 μL in a standard yields of DNA. The total elution volume may be emain equal.  Ty important that the elution solutions are used in A on the membrane for 3 minutes to ensure max	Volume (µL) h adhesive ta n Solution to 650 650 650 600 300 - 100 100 - Quick Run fea or 180 secs. I e well starts to ep. ard PCR micr lowered to 75 n the correct of	Position pe or an adheensure even v Waste Waste Waste Waste Waste Waste Waste Collection Collection Collection ture to pull 65 Repeat until or o evacuate slo	Incubation (sec) sive tray cover, acuum. Position  0 0 0 0 0 0	Vacuum (%) or pre-wet in the carriage 80 80 80 80 100 - 60 60 - flysate acrosins to be addition Solution st be incubation Solution	Time (sec) all ge with 300 300 60 60 120 - 120 - 120 - uss the ded an tions, alt in 1 and ated with

DNA Isolation from Fresh and Frozen Blood, Tissue Culture Cells, and Buccal Swabs on the ABI PRISM™ 6100 Nucleic Acid PrepStation

© Copyright 2003, Applied Biosystems. All rights reserved.

### For Research Use Only. Not for use in diagnostic procedures.

Information in this document is subject to change without notice. Applied Biosystems assumes no responsibility for any errors that may appear in this document. This document is believed to be complete and accurate at the time of publication. In no event shall Applied Biosystems be liable for incidental, special, multiple, or consequential damages in connection with or arising from the use of this document.

Applied Biosystems is a registered trademark of Applera Corporation or its subsidiaries in the U.S. and/or certain other countries.

AB (Design), ABI PRISM, Applera, and BloodPrep are trademarks of Applera Corporation or its subsidiaries in the U.S. and/or certain other countries.

Printed in the USA. 05/2003

PN 4345297, Rev. A