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QIAsymphony® DSP AXpH DNA Kit Handbook

Σ 192

Version 1

IVD

For in vitro diagnostic use

CE

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QIAGEN®

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QIAGEN Sample and Assay Technologies

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Contents

Intended Use

The QIAsymphony DSP AXpH DNA Kit utilizes AXpH technology for automated isolation and purification of DNA from biological specimens.

The product is intended to be used by professional users, such as technicians and physicians who are trained in molecular biological techniques.

The QIAsymphony DSP AXpH DNA system is intended for in vitro diagnostic use.

Summary and Explanation

The QIAsymphony DSP AXpH DNA Kit is designed for fully automated purification of DNA from liquid-based cytology media using the QIAsymphony SP. The QIAsymphony DSP AXpH DNA Kit provides DNA eluates that are ready for direct use in downstream applications, such as hybridization based assays or enzymatic reactions.

The QIAsymphony SP performs all steps of the sample preparation procedure. Up to 96 samples, in batches of up to 24, are processed in a single run.

Principle of the Procedure

QIAsymphony AXpH technology combines the speed and efficiency of pH-driven anion exchange chromatography with the convenient handling of magnetic particles (Figure 1, below). The purification procedure is designed to ensure safe and reproducible handling of potentially infectious samples, and comprises 4 steps: lyse, bind, wash, and elute (see flowchart, page 5).

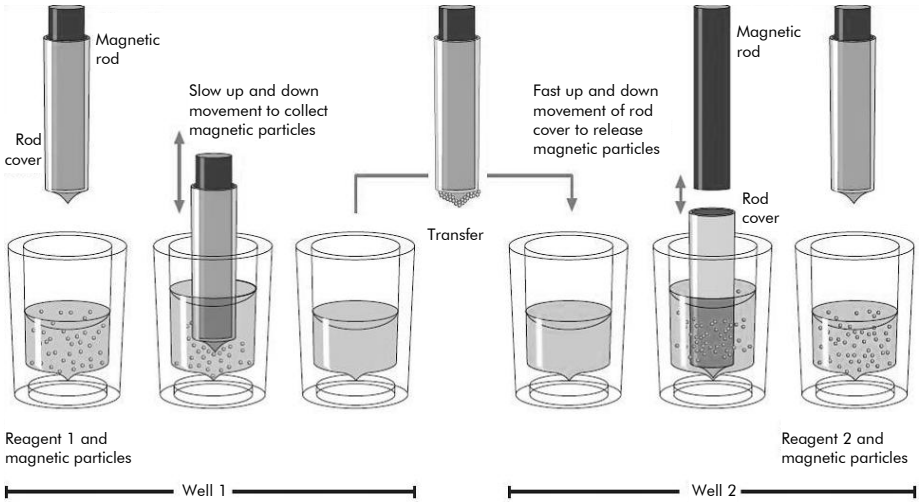
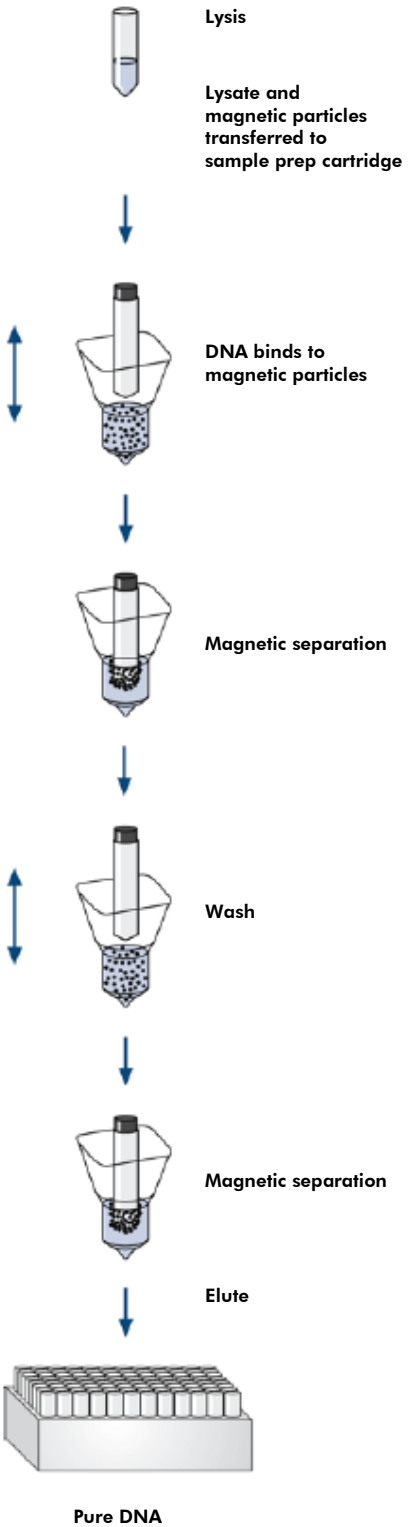


Figure 1. Schematic of the QIAsymphony SP principle. The QIAsymphony SP processes a sample containing magnetic particles as follows: A magnetic rod protected by a rod cover enters a well containing the sample and attracts the magnetic particles. The magnetic rod cover is positioned above another well and the magnetic particles are released. The QIAsymphony SP uses a magnetic head containing an array of 24 magnetic rods, and can therefore process up to 24 samples simultaneously. Steps 1 and 2 are repeated several times during sample processing.

QIAsymphony DSP AXpH Procedure



Fully automated purification on the QIAsymphony SP

Materials Provided

Kit contents

QIAsymphony DSP AXpH DNA Kit Catalog no. Number of preps			937156 192
RC	Reagent Cartridge		2
TOPE	TopElute Fluid (60 ml)	ELU FLUID	1
TR	Tube Rack		2
PL	Piercing Lid		2
RSS	Reuse Seal Set*		2
	Handbook		1

* A Reuse Seal Set contains 8 Reuse Seal Strips

Materials Required but Not Provided

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate safety data sheets (SDSs) available from the product supplier.

- Sample Prep Cartridges, 8-well (cat. no. 997002)
- 8-Rod Covers (cat. no. 997004)
- For use with protocols utilizing proteinase K: QIAGEN® Proteinase K (10 ml; cat. no. 19134)
- For sample tubes, use 14 ml 17 x 100 mm polystyrene, round-bottom tubes from Becton Dickinson (cat. no. 352051, www.bd.com)
- For elution plates, use Elution Microtubes CL (cat. no. 19588) or polystyrene U-bottom 96-well microplates from Greiner (cat. no. 650161, www.greinerbioone.com)†
- Tip Disposal Bags (cat. no. 9013395)
- Filter Tips, 1500 µl (cat. no. 997024)
- Cooling Adapter, MTP, RB, Qsym — Cooling adapter for round-bottom microplates (MTP), for use in the QIAsymphony "Eluate" drawer (cat. no. 9018085)

† This is not a complete list of suppliers.

Warnings and Precautions

For In Vitro Diagnostic Use

When working with chemicals, always wear a suitable lab coat, disposable gloves, and protective goggles. For more information, please consult the appropriate safety data sheets (SDSs). These are available online in convenient and compact PDF format at www.qiagen.com/safety where you can find, view, and print the SDS for each QIAGEN kit and kit component.

If buffer is spilt, clean with suitable laboratory detergent and water. If the spilt liquid contains potentially infectious agents, clean the affected area first with laboratory detergent and water, and then with 1% (v/v) sodium hypochlorite.

The following hazard and precautionary statements apply to components of QIAsymphony DSP AXpH DNA Kits.

AXpH Elution Buffer 1

Danger! Causes severe skin burns and eye damage. Dispose of contents/container to an approved waste disposal plant. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician. Store locked up. Wear protective gloves/ protective clothing/eye protection/face protection.

AXpH Lysis Buffer 1

Contains: boric acid. Danger! Causes skin irritation. Causes mild skin irritation. Causes serious eye irritation. May damage fertility or the unborn child. Dispose of contents/container to an approved waste disposal plant. Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/attention. If eye irritation persists: Get medical advice/ attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Obtain special instructions before use. Store locked up. Wear protective gloves/protective clothing/eye protection/face protection.

AXpH Neutralization Buffer 1

Warning! Causes mild skin irritation. If skin irritation occurs: Get medical advice/attention. Wear protective gloves/protective clothing/eye protection/face protection.

AXpHdirect Beads

Contains: boric acid. Danger! May damage fertility or the unborn child. Dispose of contents/container to an approved waste disposal plant. Do not handle until all safety precautions have been read and understood. IF exposed or concerned: Get medical advice/ attention. Obtain special instructions before use. Store locked up. Wear protective gloves/protective clothing/eye protection/face protection.

Reagent Storage and Handling

The QIAsymphony DSP AXpH DNA Kit should be stored upright at room temperature (15–25°C). Do not store reagent cartridges (RC) at temperatures below 15°C.

The magnetic particles in the reagent cartridges (RC) remain active when stored at this temperature. When stored properly, the kit is stable until the expiration date on the kit box.

Partially used reagent cartridges (RC) can be stored for a maximum of 2 weeks, enabling cost-efficient reuse of reagents and more flexible sample processing. If a reagent cartridge (RC) is partially used, replace the cover of the trough containing the magnetic particles and seal the reagent cartridge (RC) with the provided Reuse Seal Strips immediately after the end of the protocol run to avoid evaporation.

To avoid reagent evaporation, the reagent cartridge (RC) should be open for a maximum of 15 hours (including run times) at a maximum environmental temperature of 30°C.

Running batches with low sample numbers (<24) will increase both the time that the reagent cartridge (RC) is open and the required buffer volumes, potentially reducing the total number of sample preparations possible per cartridge.

Avoid exposure of the reagent cartridges (RC) to UV light (e.g., used for decontamination) as exposure may cause accelerated aging of the reagent cartridges (RC) and buffers.

Note: The label on the QIAsymphony DSP AXpH Kit box displays the expiration date of the kit. The result file documents the expiration dates for only the reagent cartridge (RC) and TopElute Fluid (TOPE).

Specimen Storage and Handling

Specimens should be stored according to the manufacturer's instructions for the corresponding media and specimen type. Specimens should be equilibrated to room temperature (15–25°C) and transferred to sample tubes just before starting the run.

Prevent formation of foam in or on the specimens. Depending on the starting material, sample preparation may be required.

For more information about the automated procedure (including information about sample tubes that can be used with specific protocols) and specific sample preparations, see the relevant protocol sheet, available at www.qiagen.com/goto/dspaxph.

Procedure

Automated purification on the QIAsymphony SP

The QIAsymphony SP makes automated sample preparation easy and convenient. Samples, reagents and consumables, and eluates are separated in different drawers. Simply load samples, reagents provided in special cartridges, and preracked consumables in the appropriate drawer before a run. Start the protocol and remove purified DNA from the "Eluate" drawer after processing. Refer to the user manuals supplied with your instrument for operating instructions.

Note: Optional maintenance is not mandatory for instrument function, but is highly recommended to reduce risk of contamination.

Note: Software version 3.5 or higher is required for the QIAsymphony DSP AXpH procedure.

Loading reagent cartridges (RC) into the "Reagents and Consumables" drawer

Reagents for purification of DNA are contained in a reagent cartridge (RC) (Figure 2, below). Each trough of the reagent cartridge (RC) contains a particular reagent, such as magnetic particles, lysis buffer, wash buffer, or elution buffer. Partially used reagent cartridges (RC) can be reclosed with Reuse Seal Strips for later use, which avoids generation of waste due to leftover reagents at the end of the purification procedure.

Figure 2. QIAsymphony reagent cartridge (RC). The reagent cartridge (RC) contains all reagents required for the protocol run.

Before starting the procedure, ensure that the magnetic particles are fully resuspended. Remove the magnetic-particle trough from the reagent cartridge frame, invert it gently 10 times (do not vortex), and replace it in the reagent cartridge frame before the first use. Place the reagent cartridge (RC) into the reagent cartridge holder. Place the empty enzyme rack into the reagent cartridge holder. Before using a reagent cartridge (RC) for the first time, place the piercing lid (PL) on top of the reagent cartridge (RC) (Figure 3).

Note: The piercing lid is sharp. Take care when placing it onto the reagent cartridge (RC). Make sure to place the piercing lid (PL) onto the reagent cartridge (RC) in the correct orientation.

Note: Do not vortex the magnetic-particle trough. Mix the magnetic-particle suspension only by gently inverting the bead trough 10 times to avoid foaming.

After the magnetic-particle trough cover is removed, the reagent cartridge (RC) is subsequently loaded into the "Reagents and Consumables" drawer.

Figure 3. Easy worktable setup with reagent cartridges (RC).

Partially used reagent cartridges (RC) can be stored until needed again, see "Reagent Storage and Handling" page 9.

Loading plasticware into the "Reagents and Consumables" drawer

Sample prep cartridges, 8-Rod Covers (both preracked in unit boxes), and disposable filter-tips (1500 µl tips provided in gray racks) are loaded into the "Reagents and Consumables" drawer.

For the consumables required, see the relevant protocol sheet, available at www.qiagen.com/goto/dspaxph. For plasticware ordering information, see "Ordering Information", page 23.

Note: Tips have filters to help prevent cross-contamination.

Note: Do not refill tip racks or unit boxes for sample prep cartridges or 8-Rod Covers before starting another protocol run. The QIAsymphony SP can use partially used tip racks and unit boxes.

TopElute Fluid (TOPE)

The QIAsymphony DSP AXpH DNA protocol requires TopElute Fluid (TOPE). An opened 60 ml bottle containing TopElute Fluid (TOPE) is placed into the "Reagents and Consumables" drawer.

Loading the "Waste" drawer

Sample prep cartridges and 8-Rod Covers used during a run are re-racked in empty unit boxes in the "Waste" drawer. Make sure that the "Waste" drawer contains sufficient empty unit boxes for plastic waste generated during the protocol run.

Note: Ensure that the covers of the unit boxes are removed before loading the unit boxes into the "Waste" drawer. If you are using 8-Rod Cover boxes for collecting used sample prep cartridges and 8-Rod Covers, ensure that the box spacer has been removed.

A tip disposal bag for used filter-tips must be attached to the front side of the "Waste" drawer.

Note: The presence of a tip disposal bag is not checked by the system. Make sure that the tip disposal bag is properly attached before starting a protocol run. For more information, see the user manuals provided with your instrument. Empty the tip bag after a maximum of 96 samples have been processed to avoid a tip jam.

A waste container collects liquid waste generated during the purification procedure. The "Waste" drawer can only be closed if the waste container is in place. Dispose of the liquid waste according to your local safety and environment regulations. Do not autoclave the filled waste bottle. Empty the waste bottle after a maximum of 96 samples have been processed.

Loading the "Eluate" drawer

Load the required elution rack into the "Eluate" drawer. As long-term storage of eluates in the "Eluate" drawer may lead to evaporation of eluates, we strongly recommend using the cooling position: use only "Elution slot 1" with the corresponding cooling adapter.

Inventory scan

Before starting a run, the instrument checks that sufficient consumables for the queued batch(es) have been loaded into the corresponding drawers.

Preparation of sample material

QIAsymphony DSP AXpH DNA Kits are suitable for specimens collected in liquid-based cytology media. Prevent formation of foam in or on the specimens. Depending on the starting material, sample preparation may be required.

Specimens should be stored according to the manufacturer's instructions for the corresponding media and specimen type. Specimens should be equilibrated to room temperature (15–25°C) and transferred to sample tubes just before starting the run.

Transfer samples to 14 ml 17 x 100 mm polystyrene, round-bottom tubes (Becton Dickinson, cat. no. 352051), and place the samples in the tube carrier.

For more information about the automated procedure and specific sample preparations, see the relevant protocol sheet, available at www.qiagen.com/goto/dspaxph.

Note: Cells in liquid-based cytology samples quickly sediment. The protocol processes an enriched sample fraction by aspirating 2 ml from the bottom of the tube. For more information about the automated procedure and specific sample volume requirements, see the relevant protocol sheet, available at www.qiagen.com/goto/dspaxph.

Storing DNA

We recommend storage of eluates in microtiter plates (Greiner, cat. no. 650161) at 2–8°C for up to 7 days.

For more information about the automated procedure and specific eluate storage recommendations, see the relevant protocol sheet, available at www.qiagen.com/goto/dspaxph.

Protocol: Purification of DNA

This protocol has been evaluated for purification of DNA from liquid-based cytology media using the QIAsymphony SP and the QIAsymphony DSP AXpH DNA Kit.

The following is a general protocol for using QIAsymphony DSP AXpH DNA Kits. Detailed information for each protocol, including sample input volumes and preparation requirements, is provided in protocol sheets that can be downloaded at www.qiagen.com/goto/dspaxph.

Important points before starting

- The QIAsymphony DSP AXpH DNA Kit (cat. no. 937156) **must** be used with Bioscript versions AXpH2000_V3_DSP or higher, or SP2000_V1_DSP or higher. The most recent Bioscript versions can be downloaded from the "User Support" tab at www.qiagen.com/QIAsymphony.
- Ensure that you are familiar with operating the QIAsymphony SP. Refer to the user manuals supplied with your instrument for operating instructions.
- Optional maintenance is not mandatory for instrument function, but is highly recommended to reduce risk of contamination.
- Ensure that you are familiar with the protocol sheet corresponding to the procedure to be used (available at www.qiagen.com/goto/dspaxph). Also check if the protocol requires proteinase K.
- Before beginning the procedure, read "Procedure" starting on page 10.
- Avoid vigorous shaking of the reagent cartridge (RC) otherwise foam may be generated, which can lead to liquid-level detection problems.
- Avoid vigorous shaking of the samples otherwise foam may be generated, which can lead to liquid-level detection problems or sample spillage.
- Use 14 ml 17 x 100 mm polystyrene, round-bottom tubes (Becton Dickinson, cat. no. 352051) as sample tubes.
- If you start a run with a new reagent cartridge (RC) and you spill some of the magnetic-particle suspension when removing the lid, stop the run after the reagent cartridge (RC) has been pierced and restart the run. Stopping the run and restarting it means that the QIAsymphony SP will perform liquid-level detection on the pierced reagent cartridge (RC) and the remaining volume in the magnetic-particle trough will be measured. Failure to do this may result in insufficient volume of magnetic particles being pipetted since liquid-level detection is not performed on a new reagent cartridge (RC).

Things to do before starting

- Make sure that the piercing lid (PL) is placed on the reagent cartridge (RC) and the lid of the magnetic-particle trough has been removed or, if using a partially used reagent cartridge (RC), make sure the Reuse Seal Strips have been removed.
- Mix the magnetic particles in the trough by gently inverting 10 times. Avoid generating foam, which can lead to liquid-level detection problems.
- The QIAsymphony DSP AXpH DNA protocol requires TopElute Fluid (TOPE). Place an opened 60 ml bottle containing TopElute Fluid (TOPE) into the "Reagents and Consumables" drawer.
- If samples are labeled with bar codes, orient samples in the tube carrier so that the bar codes face the bar code reader at the left side of the QIAsymphony SP.
- For information about minimum sample volumes for samples in sample tubes for a certain protocol, see the corresponding protocol sheet (available at www.qiagen.com/goto/dspaxph).

Procedure

1. **Close all drawers and the hood.**
2. **Switch on the QIAsymphony SP, and wait until the initialization procedure has finished.**

   The power switch is located at the bottom, left corner of the QIAsymphony SP.
3. **Log in to the instrument.**
4. **Ensure the "Waste" drawer is prepared properly, and perform an inventory scan of the "Waste" drawer, including the tip chute and liquid waste. Replace the tip disposal bag, if necessary.**
5. **Load the required reagent cartridge(s) (RC) and consumables into the "Reagents and Consumables" drawer.**
6. **Open the screen that shows the consumables status. Scan the bar code of the bottle of TopElute Fluid (TOPE) with the handheld bar code scanner and press "OK".**

   Ensure that the bottle of TopElute Fluid (TOPE) is scanned, opened, and placed into the "Reagents and Consumables" drawer before starting the inventory scan. Otherwise, the inventory scan must be repeated after scanning, opening, and placing the bottle of TopElute Fluid (TOPE) into the "Reagents and Consumables" drawer.
7. **Perform an inventory scan of the "Reagents and Consumables" drawer.**

8. **Load the required elution rack into the "Eluate" drawer.**

   Use only "Elution slot 1" with the corresponding cooling adapter.

   Make sure that the 96-well plate is in the correct orientation, as incorrect placement may cause sample mix-up in downstream analysis.

9. **Place the samples into the appropriate sample carrier, and load them into the "Sample" drawer.**

10. **When using a protocol that requires proteinase K, place the tube(s) containing sufficient volume of proteinase K into the tube carrier and load into slot A of the "Sample" drawer.**

    For more information about preparing proteinase K, see the corresponding protocol sheet (available at www.qiagen.com/goto/dspaxph).

11. **Using the touchscreen, enter the required information for each batch of samples to be processed.**

    Enter the following information:

    - Sample information (depending on sample racks used)
    - Protocol to be run
    - Output position (use only "Elution slot 1")
    - Tubes containing the proteinase K

    After information about the batch has been entered, the status changes from "LOADED" to "QUEUED". As soon as one batch is queued, the "Run" button appears.

12. **Press the "Run" button to start the purification procedure.**

    All processing steps are fully automated. At the end of the protocol run, the status of the batch changes from "RUNNING" to "COMPLETED".

13. **Retrieve the elution rack containing the purified DNA from the "Eluate" drawer.**

    We recommend storage of eluates in microtiter plates (Greiner, cat. no. 650161) at 2–8°C for up to 7 days.

    "Elution racks should be removed from the "Eluate" drawer immediately after the run has finished. Depending on temperature and humidity, elution plates left in the QIAsymphony SP after the run is completed may experience condensation or evaporation.

    In general, magnetic particles are not carried over into eluates. If carryover does occur, magnetic particles in eluates will not affect most downstream applications. If magnetic particles need to be removed before performing downstream applications, tubes or plates containing eluates should first be placed in a suitable magnet and the eluates transferred to a clean tube (see Appendix, page 22).

If the "Eluate" drawer is opened when a batch is running (e.g., if elution racks that contain eluates are removed), the run will be paused and an inventory scan of the "Eluate" drawer must be performed. Be sure to complete the eluate drawer scan before continuing with the protocol.

Result files are generated for each elution plate.

14. **If a reagent cartridge (RC) is only partially used, seal it with the provided Reuse Seal Strips and close the bottle of TopElute Fluid (TOPE) immediately after the end of the protocol run to avoid evaporation.**

    Note: For more information about storage of partially used reagent cartridges (RC), see "Reagent Storage and Handling", page 9 and corresponding protocol sheets at www.qiagen.com/goto/dspaxph.

15. **Discard used sample tubes, plates, and waste according to your local safety regulations.**

    See page 7 for warnings and precautions.

16. **Clean the QIAsymphony SP.**

    Follow the maintenance instructions in the user manuals supplied with your instrument. Be sure to clean the drop catcher regularly to minimize the risk of cross-contamination.

17. **Close the instrument drawers, and switch off the QIAsymphony SP.**

Troubleshooting guide

This troubleshooting guide may be helpful in solving any problems that may arise. For more information, see also the Frequently Asked Questions page at our Technical Support Center: www.qiagen.com/FAQ/FAQList.aspx. The scientists in QIAGEN Technical Services are always happy to answer any questions you may have about either the information and protocols in this handbook or sample and assay technologies (for contact information, see back cover or visit www.qiagen.com).

	Comments and suggestions
General handling	
Error message displayed in the touchscreen	If an error message is displayed during a protocol run, refer to the user manuals supplied with your instrument.
Precipitate in reagent trough of opened cartridge	
a) Buffer evaporation	Excessive evaporation may lead to increased salt concentration in buffers. Discard reagent cartridge (RC). Make sure to seal buffer troughs of a partially used reagent cartridge (RC) with Reuse Seal Strips when not being used for purification.
b) Storage of reagent cartridge (RC)	Storage of reagent cartridge (RC) below 15°C may lead to formation of precipitates. If necessary, remove the troughs containing Buffer AXpH L1 from the reagent cartridge (RC) and incubate in a water bath* at 37°C for 30 minutes with occasional shaking to dissolve precipitate. Make sure to replace the trough in the correct position. If the reagent cartridge (RC) is already pierced, make sure that the trough is reclosed with a Reuse Seal Strip and incubate the complete reagent cartridge (RC) in a water bath* at 37°C for 30 minutes with occasional shaking.

* Ensure that instruments have been checked, maintained, and calibrated regularly according to the manufacturer's instructions.

	Comments and suggestions
Low yield	
a) Degraded DNA	Specimens were stored incorrectly. Refer to the manufacturer's instructions for the correct storage of media and specimen type.
b) Incomplete sample lysis	Before use, check that Buffer AXpH L1 does not contain precipitates. If necessary, remove the troughs containing Buffer AXpH L1 from the reagent cartridge (RC) and incubate in a water bath* at 37°C for 30 minutes with occasional shaking to dissolve precipitate. If the reagent cartridge (RC) is already pierced, make sure that the trough is reclosed with a Reuse Seal Strip, and incubate the complete reagent cartridge (RC) in a water bath* at 37°C for 30 minutes with occasional shaking. If using a protocol that requires proteinase K, make sure that the enzyme has not exceeded its expiry date.

* Ensure that instruments have been checked, maintained, and calibrated regularly according to the manufacturer's instructions.

Quality Control

In accordance with QIAGEN's ISO-certified Quality Management System, each lot of QIAsymphony DSP AXpH DNA Kit is tested against predetermined specifications to ensure consistent product quality.

Limitations

The system performance has been established in performance evaluation studies purifying DNA from human cellular material stored in PreservCyt® and SurePath® Preservative Fluid.

It is the user's responsibility to validate system performance for any procedures used in their laboratory that are not covered by the QIAGEN performance evaluation studies.

Specimens containing contraceptive jelly may interfere with the efficiency of AXpH DNA extraction chemistry.

Eluates produced using the QIAsymphony DSP AXpH DNA system are not intended to be used in PCR.

To minimize the risk of a negative impact on the diagnostic results, adequate controls for downstream applications should be used. For further validation, the guidelines of the International Conference on Harmonisation of Technical Requirements (ICH) in *ICH Q2 (R1) Validation of Analytical Procedures: Text and Methodology* are recommended.

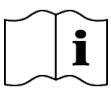
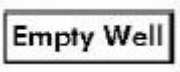
Any diagnostic results that are generated must be interpreted in conjunction with other clinical or laboratory findings.

References

QIAGEN maintains a large, up-to-date online database of scientific publications utilizing QIAGEN products. Comprehensive search options allow you to find the articles you need, either by a simple keyword search or by specifying the application, research area, title, etc.

For a complete list of references, visit the QIAGEN Reference Database online at www.qiagen.com/RefDB/search.asp or contact QIAGEN Technical Services or your local distributor.

Symbols

	Contains reagents sufficient for 192 sample preparations
	Use by
	In vitro diagnostic medical device
	Catalog number
	Lot number
	Material number
	Components
	Number
	Volume
	Temperature limitation
	Manufacturer
	Only for use with
	Consult instructions for use
	Contains
	Sodium hydroxide
	Well number
	Empty reagent well
	Global Trade Item Number
	Caution
	Sharp edge

Contact Information

At QIAGEN, we pride ourselves on the quality and availability of our technical support. Our Technical Service Departments are staffed by experienced scientists with extensive practical and theoretical expertise in sample and assay technologies and the use of QIAGEN products. If you have any questions or experience any difficulties regarding the QIAsymphony DSP AXpH DNA Kit or QIAGEN products in general, please do not hesitate to contact us.

QIAGEN customers are a major source of information regarding advanced or specialized uses of our products. This information is helpful to other scientists as well as to the researchers at QIAGEN. We therefore encourage you to contact us if you have any suggestions about product performance or new applications and techniques.

For technical assistance and more information, please see our Technical Support Center at www.qiagen.com/Support or call one of the QIAGEN Technical Service Departments or local distributors (see back cover or visit www.qiagen.com).

Appendix: Removing Magnetic-Particle Carryover

In general, magnetic particles are not carried over into eluates. If carryover does occur, magnetic particles in eluates will not affect most downstream applications.

To remove particles, the tube containing the eluate should first be applied to a suitable magnetic separator and the eluate transferred to a clean tube:

- Apply the microplate to a suitable magnetic separator (e.g., QIAGEN 96-Well Magnet Type A, cat. no. 36915) until the magnetic particles are separated.
- If a suitable magnetic separator is not available, centrifuge the tube containing the DNA for 1 minute at full speed in a microcentrifuge to pellet any remaining magnetic particles.

Ordering Information

Product	Contents	Cat. no.
QIAsymphony DSP AXpH DNA Kit (192)	For 192 DNA preps: Includes 2 reagent cartridges and enzyme racks and accessories	937156
Sample Prep Cartridges, 8-well (336)	8-well sample prep cartridges for use with the QIAsymphony SP	997002
8-Rod Covers (144)	8-Rod Covers for use with the QIAsymphony SP	997004
Reagent Cartridge Holder (2)	Reagent cartridge holder for use with the QIAsymphony SP	997008
Tip Disposal Bags (15)	Tip disposal bags for use with the QIAsymphony SP	9013395
Sample Carrier, plate, Qsym	Plate carrier for sample input for use with the QIAsymphony SP	9017660
Cooling Adapter, MTP, RB, Qsym	Cooling adapter for round-bottom microplates (MTP). For use in the QIAsymphony "Eluate" drawer	9018085
Filter-Tips, 1500 µl (1024)	Disposable Filter-Tips, racked; (8 x 128). For use with the QIAcube® and the QIAsymphony SP	997024
12-Tube Magnet	Magnet for separating magnetic particles in 12 x 1.5 ml or 2 ml tubes	36912
96-Well Magnet Type A	Magnet for separating magnetic particles in wells of 96-well plates, 2 x 96-Well Microplates FB	36915
QIAsymphony SP	QIAsymphony sample prep module	9001297
QIAGEN Proteinase K	10 ml (>600 mAU/ml, solution)	19134

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at www.qiagen.com or can be requested from QIAGEN Technical Services or your local distributor.

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Limited License Agreement

Use of this product signifies the agreement of any purchaser or user of the QIAsymphony DSP AXpH DNA Kit to the following terms:

1. The QIAsymphony DSP AXpH DNA Kit may be used solely in accordance with the *QIAsymphony DSP AXpH DNA Kit Handbook* and for use with components contained in the Kit only. QIAGEN grants no license under any of its intellectual property to use or incorporate the enclosed components of this Kit with any components not included within this Kit except as described in the *QIAsymphony DSP AXpH Kit DNA Handbook* and additional protocols available at www.qiagen.com.
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