

## Manual

# MagnifiQ™ 16 ExTerminator instant kit

Automated, magnetic removal of nucleotide dye-terminators kit after DNA cycle sequencing reactions in the 16 samples per plate format. Contains ready-to-use, reagent-filled plates and all necessary consumables.

catalog #	size	compatible devices *
444A-16U-64	64 isolations	Auto-Pure 32A
444A-16V-64	64 isolations	Auto-Pure Mini
444A-16U-256	256 isolations	Auto-Pure 32A
444A-16V-256	256 isolations	Auto-Pure Mini

#### \* Compatible devices

The kit has been tested with ThermoFisher Scientific KingFisher Flex and specific Allsheng brand isolation devices. This does not preclude it from working with other devices. If your device is not listed, please contact us at [info@aabiotech.com](mailto:info@aabiotech.com).

For research use only.

#### Guarantee

A&A Biotechnology provides a guarantee on this product.

The company does not guarantee the correct performance of this kit in the event of:

- not adhering to the supplied protocol
- use of not recommended equipment or materials
- use of other reagents than recommended or which are not a component of the product
- use of expired or improperly stored product or its components



# Table of Contents

<b>Advantages</b>	<b>3</b>
<b>Specification</b>	<b>3</b>
<b>Description</b>	<b>3</b>
<b>Contents</b>	<b>4</b>
<b>Additional equipment and reagents</b>	<b>4</b>
Necessary	4
Optional	4
<b>Material preparation</b>	<b>4</b>
<b>Protocol</b>	<b>5</b>
<b>Safety information</b>	<b>6</b>

## Advantages

- Requires just minutes of manual work while adding the samples. The rest of the procedure is carried out in an automatic extraction device.
- It does not require the initial preparation of buffers. Just add samples to the plate and after about 23 minutes get your purified products ready for sequencing.

## Specification

protocol time	~23 min
sample type	cycle sequencing PCR products
sample size	up to 20 µl
elution volume	50 µl <sup>1</sup>
elution solution	ultrapure water / deionised formamide <sup>2</sup>
binding capacity	10 µg DNA
downstream applications	capillary electrophoresis of: <ul style="list-style-type: none"> <li>• de novo Sanger DNA sequencing;</li> <li>• plasmid sequencing</li> <li>• microbial species identification</li> <li>• single-nucleotide polymorphism (SNP) genotyping</li> <li>• CRISPR-Cas9 genome editing analysis</li> </ul>

<sup>1</sup> The elution volume prepared on the plate is 50 µl. For a lower elution volume, withdraw with a pipette the appropriate amount of elution solution from the wells in columns 6 and 12 of the XP-T plate. Attention! Do not reduce the elution volume below 25 µl.

<sup>2</sup> The deionized formamide can be used for the elution step instead of the supplied elution solution. It is suggested to use dFA if more than 16 samples are being resolved in a one sequencing run on the Sequencing Studio analyser.

## Description

**MagnifiQ™ 16 ExTerminator** instant kit is designed for rapid and reliable removal of dye-terminators from the cycle sequencing products prior to the capillary electrophoresis sequencing run. Like previous A&A Biotechnology ExTerminator Kits this product also provides the visual control of the purification process by means of Blue Mix reagent. The purified material is perfectly suitable for resolving the sequencing run on automated DNA sequencers including ABI3100, SeqStudio<sup>1</sup> and other automated genetic analysers capable of resolving the BigDye terminator chemistries.

The **MagnifiQ™** product series is based on the automated isolation of nucleic acids with the use of magnetic beads. This method significantly shortens the working time and reduces the risk of making a mistake in comparison to manual methods.

<sup>1</sup> Legal Notice: The ABI3100, SeqStudio and BigDye are registered trademarks of Thermofisher Scientific.

# Contents

444A-16U-64			444A-16U-256		
component	quantity	cat #	quantity	cat #	storage
XP-T - extraction plate	4 pcs	K-P96U22XT	16 pcs	K-P96U22XT	15–25 °C
Mix Blue	350 µl	K-MIXB-350B	1.5 ml	K-MIXB-15A	15–25 °C
tip comb 8	4 x 2 pcs	K-C8U-2	16 x 2 pcs	K-C8U-2	15–25 °C
protective film	4 pcs	K-MQF-4	16 pcs	K-MQF-16	15–25 °C

444A-16V-64			444A-16V-256		
component	quantity	cat #	quantity	cat #	storage
XP-T - extraction plate	4 pcs	K-P96V22XT	16 pcs	K-P96V22XT	15–25 °C
Mix Blue	350 µl	K-MIXB-350B	1.5 ml	K-MIXB-15A	15–25 °C
tip comb 8	4 x 2 pcs	K-C8U-2	16 x 2 pcs	K-C8U-2	15–25 °C
protective film	4 pcs	K-MQF-4	16 pcs	K-MQF-16	15–25 °C

## Additional equipment and reagents

### Necessary

- pipette
- pipette tips

### Optional

- 8-channel pipette
- vortex
- deionised FA (elution solution)

## Material preparation




1. Add 5 µl of **Mix Blue** to the cycle sequencing mixture (performed in 10-20 µl). Mix by pipetting.

**Note.** If the cycle sequencing reaction is less than 10 µl add an appropriate volume of sterile water to reach the final volume of 10 µl.

2. Follow point 1. of [the Protocol](#).

## Protocol

### Protocol files

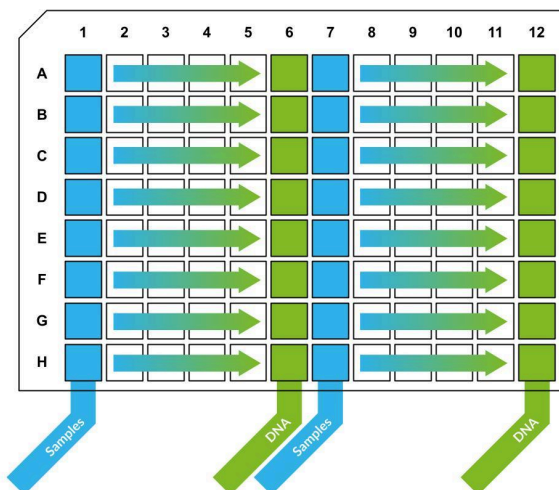
device	protocol name	protocol file	installation
Auto-Pure Mini	MQ-EXT-MI	<a href="http://aabiotech.com/protocols/magnifiq/MI/MQ-EXT-MI.txt">aabiotech.com/protocols/magnifiq/MI/MQ-EXT-MI.txt</a>	<ol style="list-style-type: none"> <li>1. Create folder "items" on a USB drive and copy the protocol file to it.</li> <li>2. Insert the USB drive into a USB slot in the device.</li> <li>3. On a device screen, go to Settings &gt; System &gt; Transfer &gt; Import.</li> <li>4. Select the protocol and tap "Import".</li> </ol>
Auto-Pure Mini (QR code)	MQ-EXT-MI		<ol style="list-style-type: none"> <li>1. On a device screen, go to Run &gt;  &gt; </li> <li>2. Scan the QR code with the device's scanner.</li> </ol>
Auto-Pure 32A	MQ-EXT-32A	<a href="http://aabiotech.com/protocols/magnifiq/32A/MQ-EXT-32A.txt">aabiotech.com/protocols/magnifiq/32A/MQ-EXT-32A.txt</a>	<ol style="list-style-type: none"> <li>1. Create folder "items" on a USB drive and copy the protocol file to it.</li> <li>2. Insert the USB drive into a USB slot in the device.</li> <li>3. On a device screen, go to Settings &gt; Im.&amp;Export &gt; Import.</li> <li>4. Select the protocol and tap "Import".</li> </ol>
Auto-Pure S32	MQ_EXT_S32	<a href="http://aabiotech.com/protocols/magnifiq/S32/MQ_EXT_S32.txt">aabiotech.com/protocols/magnifiq/S32/MQ_EXT_S32.txt</a>	<ol style="list-style-type: none"> <li>1. Create folder "im_export_protocols" on a USB drive and copy the protocol file to it.</li> <li>2. Insert the USB drive into a USB slot in the device.</li> <li>3. On a device screen, go to Protocols &gt; Import.</li> <li>4. Select the protocol and tap "Import".</li> </ol>

## Nucleotide dye-terminators removal protocol

1. Carefully centrifuge the **XP-T** plate for **1 min** at **2000 RPM**.
2. Remove the foil from the **XP-T** extraction plate.
3. Add the mix of cycle sequencing products with Mix Blue (**15 -25 µl** volume of sample) to the wells in columns **1** and **7** of the **XP-T** extraction plate.
4. Place **XP-T** extraction plate(s) in the extraction device.
5. Place the appropriate number of **tip combs 8** in the extraction device.
6. Run the protocol on your device.
7. After the program is over, remove the **XP-T** extraction plate from the extraction device and seal it with a protective film. The purified DNA is located in columns **6** and **12** of **XP-T** extraction plate and it is ready for direct loading onto the Genetic Analyser Sequencing analysis run (models: SeqStudio, 310, 3100, 3100-Avant™, 3130 and 3130xl Genetic Analyzers).

**Note.** The light blue color of the eluates confirms the correct magnetic beads mediated purification process.

**Note.** For longer storage of purified cycle sequencing products, it is recommended to transfer them from the plate to appropriate vessels and store at -20 °C.



# Safety information

---



**DANGER**

## XP-T extraction plate

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

P210 Keep away from heat, sparks, open flames, hot surfaces. No smoking.

P261 Avoid breathing vapors.

P305+P351+P338 If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

---



# A&A BIOTECHNOLOGY

innovating life science

A&A Biotechnology, Strzelca 40, 80-299 Gdańsk, Poland  
phone +48 883 323 761, +48 600 776 268  
info@aabiotech.com, www.aabiotech.com

version 2024-1

