A&A BIOTECHNOLOGY
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Manual

MagnifiQ™ 1 ExTerminator instant kit

Automated, magnetic removal of nucleotide dye-terminators kit after DNA cycle sequencing reactions in the strip format. Contains ready-to-use, reagent-filled stripes and all necessary consumables. The strip format enables isolation of a single sample per purification run.

catalog #	size	compatible devices *
444A-1V-32	32 isolations	Auto-Pure S32 Auto-Pure Mini
444A-1V-160	160 isolations	Auto-Pure S32 Auto-Pure Mini

*** Compatible devices**
The kit has been tested with 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@aabiot.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

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Advantages

- MagnifiQ™ 1 ExTerminator instant kit does not require initial preparation of buffers. Just add samples of DNA sequencing products to the strip and get purified material free from unincorporated dyeterminators material within approximately 23 min.

Specification

protocol time	~23 min
sample type	cycle sequencing PCR products
sample size	up to 20 µl
elution volume	50 µl [1]
elution solution	ultrapure water / deionised formamide [2]
binding capacity	10 µg DNA
downstream applications	capillary electrophoresis of: • de novo Sanger DNA sequencing; • plasmid sequencing • microbial species identification • single-nucleotide polymorphism (SNP) genotyping • CRISPR-Cas9 genome editing analysis

[1] 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 well 6 on the XS-T strip. Attention! Do not reduce the elution volume below 25 µl.
[2] 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™ 1 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[1] 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 use of magnetic beads. This method significantly shortens working time and reduces risk of mistakes in comparison to manual methods.

[1] Legal Notice: The ABI3100, SeqStudio and BigDye are registered trademarks of Thermofisher Scientific.

Contents

	444A-1V-32		444A-1V-160		
component	**quantity**	**cat #**	**quantity**	**cat #**	**storage**
XS-T - extraction strip	4 x 8 pcs	K-S1V22XT	20 x 8 pcs	K-S1V22XT	15–25 °C
Mix Blue	350 µl	K-MIXB-350B	1.5 ml	K-MIXB-15A	15–25 °C
tip comb 8	16 pcs	K-C8U-16	2 x 40 pcs	K-C8U-40	15–25 °C

Additional equipment and reagents

Necessary

- automated pipette
- pipette tips

Optional

- vortex
- deionised FA (elution solution)
- sterile Eppendorf tubes

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

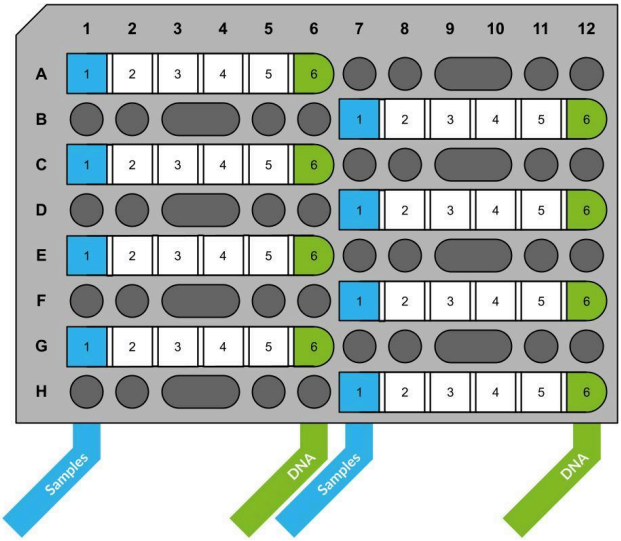
Protocol files

device	protocol name	protocol file	installation
Auto-Pure Mini	MQ-EXT-MI	aabiot.com/protocols/magnifiq/MI/MQ-EXT-MI.txt	1. Create folder "items" on a USB drive and copy the protocol file to it. 2. Insert the USB drive into a USB slot in the device. 3. On a device screen, go to Settings > System > Transfer >Import. 4. Select the protocol and tap "Import".
Auto-Pure Mini (QR code)	MQ-EXT-MI		1. On a device screen, go to Run > ☰ > ⊂⊃ 2. Scan the QR code with the device's scanner.
Auto-Pure S32	MQ_EXT_S32	aabiot.com/protocols/magnifiq/S32/MQ_EXT_S32.txt	1. Create folder "im_export_protocols" on a USB drive and copy the protocol file to it. 2. Insert the USB drive into a USB slot in the device. 3. On a device screen, go to Protocols >Import. 4. Select the protocol and tap "Import".

Nucleotide dye-terminators removal protocol

Inspect the **XS-T stripes** before opening. Check for any droplets of reagents on the side walls near the closing seal.
If droplets are present, spin the stripes in a benchtop centrifuge for 1 min at 500 x g using a swing-out rotor for 96 deep-well plates and the supplied stripe rack. If a centrifuge is not available, gently shake the closed strip to transfer all droplets of condensed reagents down to the bottom of the wells.

1. Place **XS-T** stripes in the rack.



2. Remove the foil from the **XS-T** stripes starting from well **6**.

Note. The wells are numbered on the side of the strip. Well **6** is distinguished by a rounded edge.

Carefully peel back the foil by removing it slowly at an approximately 45° angle so that all plastic comes off the top of the strip/cartridge. Ensure that all foil and any residual adhesive are completely removed before placing stripes/cartridges in the extraction device (see figure).

3. Add the mix of cycle sequencing products with Mix Blue (**15 -25 µl** volume of sample) to the well **1** (first from the left) on the **XS-T** strip.

4. Place the rack 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 completed, remove the combs and then remove the rack from the extraction device and transfer the purified DNA located in well **6** (first from the right) on the **XS-T** strip into sterile tubes (not included). The purified DNA 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. Store extracted material at -20 °C.

Safety information

DANGER

XS-T - extraction strip

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.

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