

Instructions For Use

Version: 2.0 Ref: IFU-RECAP3730

Revision date: 2023-06-28

ReCAPTM

Capillary Array Regeneration Kit

For 3730/3730XL Genetic Analyzers



NimaGen.

Innovators in
DNA Sequencing
Technologies

Product and Company Information

ReCAP™ Capillary Array Regeneration Kit for 3730/3730XL Genetic Analyzers










CAR-3730

Research Use Only



NimaGen B.V.
Hogelandseweg 88
6545 AB Nijmegen
The Netherlands
Tel: +31 (0)24 820 02 41
Email: info@nimagen.com

Symbols Used on Product Labels and in Instructions For Use

Symbol	Description
	Manufacturer
	Use-by date
	Lot number
	Reference number
	Temperature limit for storage
	Contains sufficient for <n> tests
	Matrix code containing the reference number, lot number and use-by date

Product Description

Capillary array as a carrier for polymers (e.g. POP™ and NimaPOP™ separation media) is critical for peak separation in Sanger sequencing and fragment analysis. At the end of the array life, the array will not generate well-separated peaks.

The ReCAP™ Capillary Array Regeneration Kit is used to perform a complete rejuvenation and revitalization of old and failing capillary arrays of 3730/3730XL Series Genetic Analyzers. Particularly those arrays that start to lose resolution, or show smears or tails in the electropherogram. Additionally, it cleans the pump blocks of the machine, preventing or eliminating yellow or red haze.

Regeneration extends the lifespan of the array, maintaining optimal performance, avoiding the cost of unnecessary early array replacement. ReCAP™ requires no disassembling or reassembling of the array. There is no need for spectral and spatial calibration after array cleaning.

Kit Contents and Storage

ReCAP™ Capillary Array Regeneration Kit for 3730/3730XL Series contains 4 ready-for-use buffer solutions, to be applied sequentially to the instrument's pump blocks and 48/96 capillaries via the built-in Water Wash Wizard protocol.

Contents	Reference	Volume	Storage
ReCAP™ Buffer 1	CAR-3730-B1	Bottle, 13 mL	Store at 2 - 8 °C, protected from light. Do not freeze.
ReCAP™ Buffer 2	CAR-3730-B2	Bottle, 13 mL	
ReCAP™ Buffer 3	CAR-3730-B3	Bottle, 13 mL	
ReCAP™ Buffer 4	CAR-3730-B4	Bottle, 13 mL	

Required Materials, Not Included

Description	Manufacturer	Product Code
Deionized water (diH ₂ O)		
Empty and clean polymer bottle, 30 mL	Nalgene	
NimaPOP™-7 polymer for 3730 Series, 28 mL	NimaGen B.V.	NIP7-028
NimaPOP™ 10x Running Buffer, 100 mL	NimaGen B.V.	NIB-100

General Precautions

Read the Material Safety Data Sheet (MSDS) and follow the handling instructions. Adhere to good laboratory practice and wear protective eyewear, gloves and lab coat when handling the buffers supplied in this kit.

Wash body parts with ample amount of water immediately if they come in contact with the buffers. Seek medical help if needed.

Protocol

1. Start the instrument and launch the software.
2. Open the door and remove the left buffer jar from the pump block; make sure the white drip tray is in place underneath the pump block.
3. Fill the empty 30 mL bottle with deionized water and install it at the polymer bottle position.
4. Perform and complete a water wash wizard from the Wizard menu:
 - ✓ When told to reinstall polymer, ignore this but leave the current bottle in the instrument. Select "Same Lot".
 - NOTE: When the system during the wizard asks for bubbles visible, always click "no", even if there are bubbles. Because of the lower viscosity of the buffers and water, some bubbles may be formed in the pump chamber. This is not a problem.
 - ✓ Finish the wizard by filling the capillary array. To do so, the doors have to be closed. The array will now be filled with the content of the bottle.
 - NOTE: This takes only a few seconds because of low viscosity.
5. After clicking "Finish" go to manual control and choose "Polymer Delivery Pump" from the main drop-down menu.
 - ✓ Choose "Close Buffer Valve" → send command.
 - ✓ Choose "Home Piston" → send command.
 - ✓ Choose "Move Piston Down", Type "20000" steps → send command.
 - ✓ Wait for 10 seconds.
 - ✓ Click "send command" again to repeat "Piston Down 20000" command.
6. Open the door and install the ReCAP™ Buffer 1 bottle at the polymer positions.
7. Repeat steps 4 - 5 with Buffer 1 in the system, instead of water.
8. Leave the system for 60 minutes after finishing step 6 with Buffer 1 in the capillaries.
9. Open the door and install the ReCAP™ Buffer 2 bottle at the polymer positions.
10. Repeat steps 4 - 5 with Buffer 2 in the system, instead of water.

11. Leave the system for 5 minutes after finishing step 6 with Buffer 2 in the capillaries.
12. Repeat steps 4 - 5 with Buffer 3 in the system, instead of water.
13. Leave the system for 30 minutes after finishing step 6 with Buffer 3 in the capillaries.
14. Open the door and install the ReCAP™ Buffer 4 bottle at the polymer positions.
15. Repeat step 4 - 5 with Buffer 4 in the system, instead of water.
16. Leave the system for 5 minutes after finishing step 6 with Buffer 4 in the capillaries.
17. Open the door and install the 30 mL bottle filled with deionized water.
18. Repeat steps 4 - 5 with water in system. The block and capillaries are now filled with water and ready to be used.
19. When told to reinstall polymer, apply a 30 mL bottle of fresh NimaPOP™ 3730 Series polymer.

- ✓ In this last wizard, all bubbles should be gone after the polymer is applied.
- ✓ Finish the wizard by filling the capillary array (the doors have to be closed).
- ✓ Take the white drip tray from the system, clean it and place it back.
- ✓ Remove all buffer and water vials from the instrument, clean them and fill them with fresh buffer / water (where applicable).

NOTE: Similar to a new capillary array, it may take up to two runs for the array to reach optimal performance.

Customer Support

For technical assistance, please contact us at techsupport@nimagen.com.

Revision History

Section	Summary of changes	Version	Date
All	New document.	1.0	2018-09-06
All	New layout. New introduction (Product Description). Kit Contents and Storage. General Precautions.	2.0	2023-06-28

Legal Notice

ReCAP and NimaPOP are trademarks of NimaGen B.V.; all other product names and trademarks are the property of their respective owners.

Disclaimer

The on-instrument life and performance of a capillary array are determined by the number of days after first installation, samples run, injections performed, or expiry date. Usage is generally tracked by the system software. ReCAP™ is intended for rejuvenation of capillary arrays, but is not to be applied to defects resulting from or repairs required due to misuse, neglect, accident or operation outside instructions of the instrument system.

Although the information in this document is presented in good faith and believed to be correct at the time of printing, NimaGen makes no representations or warranties as to its completeness or accuracy. NimaGen has no liability for any errors or omissions in this document, including your use of it.

Published by

NimaGen B.V.
Hogelandseweg 88
6545 AB Nijmegen
The Netherlands
www.nimagen.com

© 2023 NimaGen
All rights reserved.