

# Instructions For Use

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## ReCAP™

### Capillary Array Regeneration Kit

For 3130/3130XL Genetic Analyzers

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**NimaGen.**

Innovators in  
DNA Sequencing  
Technologies

## Product and Company Information

### ReCAP™ Capillary Array Regeneration Kit



CAR-3130



Research Use Only











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**QUALITY MANAGEMENT SYSTEM**

ISO 9001:2015    FM 711484  
ISO 13485:2016    MD 711483

## Symbols Used on Product Labels

Symbol	Description
	Manufacturer
	Use-by date
	Lot number
	Reference number
	Research Use Only
	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, it 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 3130/3130XL Series Genetic Analyzers. Particularly those arrays that start to lose resolution, or showing 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 3130/3130XL Series contains 4 ready-for-use buffer solutions, to be applied sequentially to the instrument's pump blocks and 4/16 capillaries via the built-in Water Wash Wizard protocol.

Contents	Reference	Volume	Storage
ReCAP™ Buffer 1	CAR-3130-B1	Bottle, 9 mL	Store at 2–8°C, protected from light. Do not freeze.
ReCAP™ Buffer 2	CAR-3130-B2	Bottle, 9 mL	
ReCAP™ Buffer 3	CAR-3130-B3	Bottle, 9 mL	
ReCAP™ Buffer 4	CAR-3130-B4	Bottle, 9 mL	

## Required Materials, Not Included

Description	Manufacturer	Product Code
Deionized water (diH <sub>2</sub> O)		
Empty and clean polymer bottle, 30 mL	Nalgene	
NimaPOP™ 4, 6 or 7 polymer for 3130 Series, 10 mL	NimaGen	NIP4-010, NIP6-010 or NIP7-010
NimaPOP™ 10x Running Buffer, 25 mL	NimaGen	NIB-025

## 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, doors have to be closed. The array will now be filled with the content of the bottle.
  - NOTE: This takes only few seconds because of low viscosity.
5. After clicking “finish” go to manual control and choose “Polymer Delivery Pump” from 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 door and install ReCAP™ Buffer 1 bottle at 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 capillaries.
9. Open door and install ReCAP™ Buffer 2 bottle at 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 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 capillaries.
14. Open door and install ReCAP™ Buffer 4 bottle at 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 capillaries.
17. Open door and install the 30 mL bottle filled with deionized water.
18. Repeat steps 4-5 with water in system. Block and capillaries are now filled with water and ready to be used.
19. When told to reinstall polymer, apply a 10 mL bottle of fresh NimaPOP™ 3130 Series polymer.

- ✓ In this last Wizard, all bubbles should be gone after polymer is applied.
- ✓ Finish the Wizard by filling the capillary array (doors have to be closed).
- ✓ Take the white dripping tray from the system, clean it and place back.
- ✓ Remove all buffer and water vials from the instrument, clean them and fill 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](mailto:techsupport@nimagen.com).

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