



Troubleshooting Steps

1 HV check failed

- 1-a. Repeat HV check 2-3 times.
- 1-b. Soak cartridge tip in hot water and purge cartridge at least 15-30 mins with purge station simultaneously.

2 Calibration failed

Check HV purge, sample injection and separation current respectively.

- Unstable current of sample injection:
Make sure Alignment Marker (20 bp & 1000 bp, C109100) was loaded $\geq 20 \mu\text{l}$ in 0.2 ml PCR tube and place at MA1/ M position.
- Unstable current of HV purge or separation:
2-a. Repeat unpacking procedure (2) and make sure the pin has been pressed all the way in (puncturing the internal gel barrier).
2-b. Follow "Troubleshooting 1-b".

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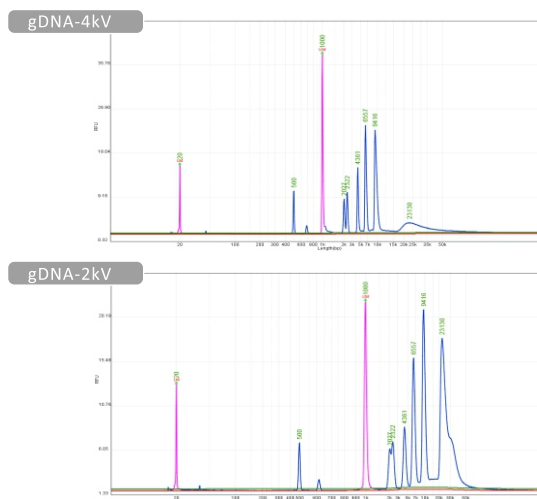


Packing list for 1 pc/ 2 pcs cartridge kit

	High Sensitivity Kilobase Cartridge Kit		
	1 pc (C105153)	2 pcs (C105253)	Storage condition
HS Kilobase Cartridge (N3)	1 pc	2 pcs	4°C~27°C
Alignment Marker (20bp & 1000bp, C109100)	100 μL*1	100 μL*2	-20°C
Separation Buffer	50 mL	50 mL	4°C~27°C
Dilution Buffer	15 mL	15 mL	
Mineral Oil	8 mL	8 mL	
Accessory Package			
Buffer Tray	2 pcs	2 pcs	
PCR Vial	8 Strip *1		
Dropper	2 pcs	2 pcs	

*Short-Term Storage (≤ 3 months): 4°C ~ 27°C ; Long-Term Storage: -20°C

Analyzed result of 500bp-23kb DNA Size Marker (C109700) by N3 cartridge



Size Marker Preparation

Size Marker	Preparation Condition
100bp- 10kb Size Marker (C109400)	Dilute 2 times by 1x dilution buffer before analysis
500bp-23kb Size Marker (C109700)	Dilute 5 times by 1x dilution buffer before analysis

※ Download the cartridge user guide from QR code or [link](#).



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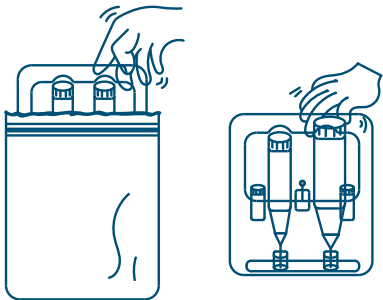
High Sensitivity Kilobase Cartridge



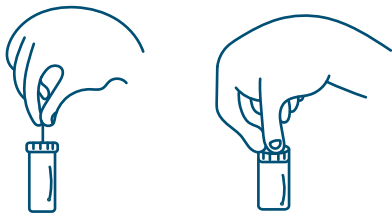
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Unpacking procedure

- 1** Open the cartridge shell and take out cartridge vertically.



- 2** Insert the pin into the small hole of cartridge cap and press it all the way in. Please repeat 2-3 times.

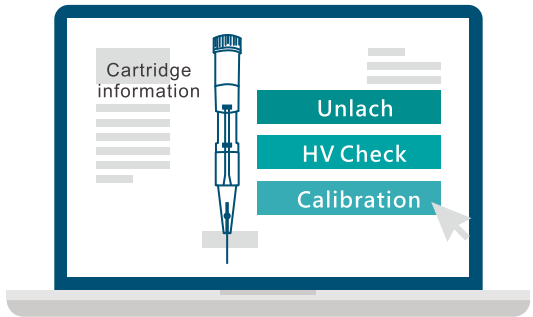


Recommendation: Repeat step 2 before use each time.

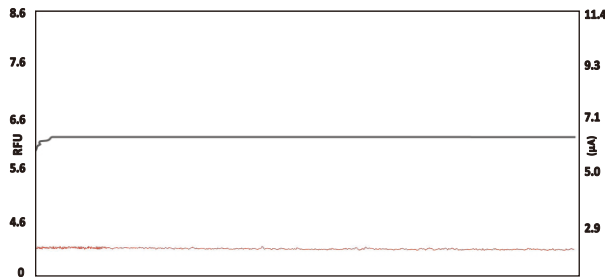
- 3** Remove the pin and clean cartridge cap and tip with tissue. Make sure the cartridge is always kept in vertical position.



- 4** Cartridge has to pass **HV check** and **Calibration** before use.

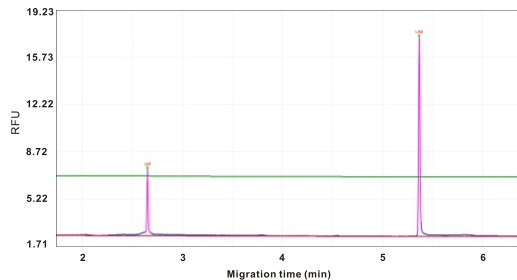


- **HV Check:** The current (gray line should be flat and $>2 \mu\text{A}$)



*If the HV Check failed, please refer to troubleshooting (1).

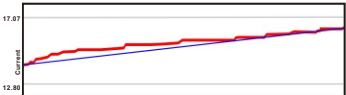
- **Calibration:** Place alignment marker 20 bp & 1000 bp (C109100) at MA1/M position.



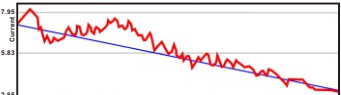
*If the Calibration failed, please refer to troubleshooting (2).

Once the the calibration step is successful, check the HV purge, sample injection and separation current. If the current is unstable, please refer to troubleshooting **2**

HV purge

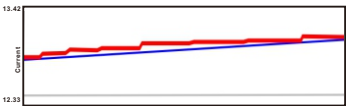


Stable

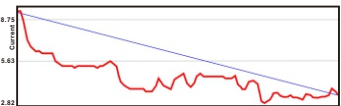


Unstable

Sample Injection



Stable

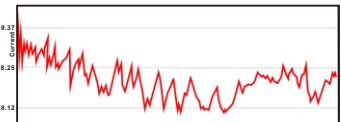


Unstable

Separation



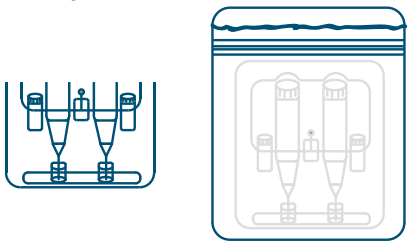
Stable



Unstable

Packing Cartridges

Please inert cartridge back to cartridge shell and put cartridge shell into moisturizing bag after analysis.



*Please ensure cartridge tip be inserted into protection gel