

## MagListo™ 5M PCR/Gel Purification Kit (K-3627G)

### I Before You Begin

- 1) Prepare absolute isopropanol and absolute ethanol (not provided in the kit).
- 2) Gels containing  $\leq 1\%$  agarose for purification are required.
- 3) Ensure to add **29 ml of absolute isopropanol (not provided)** to **PB Buffer** before the purification.
- 4) Add correct amount of **absolute ethanol (not provided)** to **FWMB1 Buffer** and **WB2 Buffer**, respectively (see bottle label).
- 5) Pre-heat EA Buffer at 60°C before use.

### II Fragment DNA purification from PCR product sample

- 1) Add **5 volumes** of **PB Buffer** to the PCR product and mix thoroughly by vortexing. (e.g., For 20  $\mu$ l of PCR product, add 100  $\mu$ l of PB Buffer in 1.5 ml tube.)
- 2) Add **100  $\mu$ l of Magnetic Nano Beads Solution** and mix thoroughly by vortexing. (**Note**) Please vortex the Magnetic Nano Beads Solution before use.
- 3) Place the tube in **MagListo™-2 Magnetic Separation Rack**. The **MagListo™** stand is attached with the magnet plate. Then gently invert the tube 3-4 times.
- 4) Without removing the tubes from the rack, carefully discard the supernatant and remove the remaining supernatant using the paper towel by blotting.
- 5) Detach the magnet plate from the stand. Add **700  $\mu$ l of WB2 Buffer** to the tube and mix thoroughly by vortexing.
- 6) Attach the magnet plate to the stand and gently invert the tube 3-4 times until the beads are tightly bound to the magnet.
- 7) Remove the supernatants without removing the tubes from the rack.
- 8) Detach the magnet plate from the stand. Add **700  $\mu$ l of absolute ethanol (not provided)**, and mix thoroughly by vortexing, then repeat the above steps 6-7.
- 9) Detach the magnet plate from the stand. Completely dry the beads for 10 min with the tube opened at 60°C using the Heating Block. Remove the remaining supernatant using the pipette.
- 9) Add **30-50  $\mu$ l of EA Buffer** and mix thoroughly by vortexing. Incubate the tube at 60°C for more than 1 min.
- 10) Attach the magnet plate to the stand and carefully transfer the supernatant containing the nucleic acid to a sterile microcentrifuge tube.



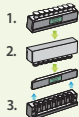




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### III Fragment DNA purification from Agarose gel



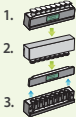





- 1) Visualize the band in agarose gel stained with any nucleic acid staining chemicals and cut the gel around the DNA band of interest using a scalpel blade.
- 2) The maximum amount of gel slice in each sample is **approximately 400 mg**.  
Add **3 volumes** of **FB Buffer** to the gel slice (e.g., For 200 mg gel slice, add 600  $\mu$ l of FB Buffer).  
**(Note)** Ensure that the FB Buffer color remains yellow.
- 3) Incubate the sample at **60°C** for **10 min** and invert the tube every 2-3 min during the incubation to mix.  
**(Note)** The gel slice should be completely dissolved. If it has not melted completely, extend the incubation time.
- 4) Add **100  $\mu$ l** of **Magnetic Nano Beads Solution** and mix thoroughly by vortexing.  
**(Note)** Please vortex the Magnetic Nano Beads Solution before use.
- 5) Place the tube in **the rack** in which the stand is attached with the magnet plate and gently invert the tube 3-4 times.
- 6) Without removing the tubes from the rack, carefully discard the supernatant out and remove the remaining supernatant using the paper towel by blotting.
- 7) Detach the magnet plate from the stand. Add **700  $\mu$ l** of **FWMB1 Buffer** to the tube, and mix thoroughly by vortexing.
- 8) Attach the magnet plate to the stand and invert the tube 3-4 times gently, until the beads are tightly bound to the magnet.
- 9) Remove the supernatant without removing the tubes from the rack.
- 10) Detach the magnet plate from the stand. Add **700  $\mu$ l** of **WB2 Buffer** to the tube and mix thoroughly by vortexing. Repeat the above steps 8-9.
- 11) Detach the magnet plate from the stand. Add **700  $\mu$ l** of **absolute ethanol (not provided)** to the tube, mix thoroughly by vortexing, and repeat the above steps 8-9.
- 12) Detach the magnet plate from the stand. Completely dry the beads for 10 min with the tube opened at 60°C using the Heating Block. Remove the remaining supernatant using the pipette.
- 13) Add **30-50  $\mu$ l** of **EA Buffer** and mix thoroughly by vortexing. Incubate the tube at 60°C for more than 1 min.
- 14) Attach the magnet plate to the stand and carefully transfer the supernatant containing the nucleic acid to a sterile microcentrifuge tube.

※ For more information, please visit [www.bioneer.com](http://www.bioneer.com) and refer to the User Guide of this kit.

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Step	Image	Description
Binding		Add <b>PB Buffer</b> to the PCR product and mix.  - Add <b>5 volumes of PB buffer</b> to the PCR product. (ex. For 20 µl of PCR product, add 100 µl of PB buffer)
		Add <b>100 µl of Magnetic Nano Bead</b> and mix
		Follow these 3 Magnet Attach/Detach Steps 1. Attach the magnet 2. Discard the supernatant 3. Detach the magnet
1 <sup>st</sup> Wash		Add <b>700 µl of WB2 Buffer</b> and mix
		Repeat the above "magnet attach/detach step" (step <b>1,2 and 3</b> )
2 <sup>nd</sup> Wash		Add <b>700 µl of Absolute ethanol</b> and mix
		Repeat the above "magnet attach/detach step" (step <b>1,2 and 3</b> )
Drying		<b>Drying Bead</b>  Dry the beads with the tube opened at <b>60°C for 10 min</b>
Elution		Add <b>30-50 µl of EA buffer</b> and mix
		Use the <b>60°C Heating block</b> for more than <b>1 min</b>

# MagListo™ 5M PCR/Gel Purification Kit (K-3627G)

Step	Image	Description
Gel solubilization		Add <b>FB Buffer</b> to the gel slice - Gel sample: <b>approx. 400 mg</b> - Add <b>3 volumes</b> of <b>FB buffer</b> to the gel slice (e.g., for 200 mg of gel slice, add 600 µl of FB buffer)
		Use the <b>60°C Heating block</b> for <b>10 min</b> and invert the tube every 2-3 min during incubation
Binding	 	Add <b>100 µl</b> of <b>Magnetic Nano Bead</b> and mix
		Follow these 3 Magnet Attach/Detach Steps 1. Attach the magnet 2. Discard the supernatant 3. Detach the magnet
1 <sup>st</sup> Wash		Add <b>700 µl</b> of <b>FWMB1 Buffer</b> and mix
		Repeat the above "magnet attach/detach step" (step 1,2 and 3)
2 <sup>nd</sup> Wash		Add <b>700 µl</b> of <b>WB2 Buffer</b> and mix
		Repeat the above "magnet attach/detach step" (step 1,2 and 3)
3 <sup>rd</sup> Wash		Add <b>700 µl</b> of <b>Absolute ethanol</b> and mix
		Repeat the above "magnet attach/detach step" (step 1,2 and 3)
Drying	 Drying Bead	Dry the beads with the tube opened at <b>60°C</b> for <b>10 min</b>
Elution		Add <b>30-50 µl</b> of <b>EA buffer</b> and mix
		Use the <b>60°C Heating block</b> for more than <b>1 min</b>