Mag-Bind® Total Pure NGS

Revision No: 1.1

Quick Guide

Please visit www.omegabiotek.com for a downloadable user manual containing additional protocols, troubleshooting tips, and ordering information.

Product	M1378-00	M1378-01	M1378-02
Mag-Bind® Total Pure NGS	5 mL	50 mL	500 mL

Supplied by user:

- 96 or 384-well PCR plate containing PCR samples with capacity to hold sample and magnetic bead volumes desired
- Magnetic separation device
- 96 or 384-well microplate or PCR Plate for elution
- Vortexer
- Multichannel pipettor
- Multichannel disposable reservoirs
- Sealing film
- 70% ethanol
- Elution Buffer (Cat#PDR048), TE Buffer, or nuclease-free water

Protocol for 96-well Plates

BIND

1. Read the manufacturer's instruction manual for the magnetic separation device, if provided.
2. Place the 96-well PCR plate on the bench and measure the volume of the PCR reaction. Determine the volume of Mag-Bind® Total Pure NGS that will be added to the reaction. If the reaction volume will exceed 200 µL transfer to a microtiter plate for processing. PCR reactions >20 µL will need to be transferred to a processing plate.
3. Shake or vortex the Mag-Bind® Total Pure NGS to resuspend any particles that may have settled. ***Allow Mag-Bind® Total Pure NGS to come to room temperature before use.***
4. Add the desired volume of Mag-Bind® Total Pure NGS to each well based upon desired fragment size to recover. Adding more Mag-Bind® Total Pure NGS binds smaller fragments while using less will exclude smaller sizes. Volumes to add to the sample is determined by the next generation sequencing library construction instruction manual. For example, 1.2X ratio required: 50 µL sample x 1.2 = add 60 µL Mag-Bind® Total Pure NGS.
5. Pipet up and down 5-10 times or vortex for 30 seconds. Let sit at room temperature for 5 minutes.
6. Place the plate on a magnetic separation device to magnetize the Mag-Bind® Total Pure NGS. Let sit at room temperature until the Mag-Bind® Total Pure NGS is completely cleared from solution. Aspirate and discard the cleared supernatant. Do not disturb the Mag-Bind® Total Pure NGS.

WASH

7. With the plate remaining on the magnet, add 200 µL 70% ethanol to each well. Let sit at room temperature for 1 minute. It is not necessary to resuspend the Mag-Bind® Total Pure NGS. Aspirate and discard the cleared supernatant. Do not disturb the Mag-Bind® Total Pure NGS.
8. Repeat Step 7 for a second 70% ethanol wash step.
9. Leave the plate on the magnetic separation device for 5-15 minutes to air dry the Mag-Bind® Total Pure NGS. Remove any residual liquid with a pipettor. It is important to dry the Mag-Bind® Total Pure NGS before elution. Residual ethanol may interfere with downstream applications. Incubating the plate at 37°C can speed up evaporation.

ELUTE

10. Remove the plate from magnetic separation device. Add 30-40 µL Elution Buffer (not provided) to each well. Pipet up and down 20 times or vortex for 30 seconds. Let sit at room temperature for 5 minutes.
11. Place the plate on a magnetic separation device to magnetize the Mag-Bind® Total Pure NGS. Let sit at room temperature until the Mag-Bind® Total Pure NGS is completely cleared from solution. Transfer the cleared supernatant containing purified DNA to a new 96-well microplate and seal with non-permeable sealing film.
12. Store the plate at 2-8°C if storage is only for a few days. For long-term storage, samples should be kept at -20°C.

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Quick Guide

Protocol for 384-well Plates

BIND

1. Read the manufacturer's instruction manual for the magnetic separation device, if provided.
2. Place the 384-well PCR plate on the bench and measure the volume of the PCR reaction. Transfer the sample to a skirted 384-well PCR plate.
3. Shake the Mag-Bind® Total Pure NGS to resuspend any Mag-Bind® Total Pure NGS particles that may have settled. Allow Mag-Bind® Total Pure NGS to come to room temperature before use.
4. Add the desired volume of Mag-Bind® Total Pure NGS to each well based upon size of fragments to recover. Adding more Mag-Bind® Total Pure NGS allows smaller fragments to bind to magnetic beads while the larger fragments will continue to bind. Volume to add to the sample is determined by the next generation sequencing library construction instruction manual. For example, 1.2X ratio required: 50 µL sample x 1.2 = add 60 µL Mag-Bind® Total Pure NGS.
5. Pipet up and down 5-10 times or vortex for 30 seconds. Let sit at room temperature for 5 minutes.
6. Place the plate on a magnetic separation device to magnetize the Mag-Bind® Total Pure NGS. Let sit at room temperature until the Mag-Bind® Total Pure NGS is completely cleared from solution. Aspirate and discard the cleared supernatant. Do not disturb the Mag-Bind® Total Pure NGS.

WASH

7. Add 30 µL 70% ethanol to each well. Let sit at room temperature for 1 minute. It is not necessary to resuspend the Mag-Bind® Total Pure NGS. Aspirate and discard the cleared supernatant. Do not disturb the Mag-Bind® Total Pure NGS.
8. Repeat Step 7 for a second 70% ethanol wash step.
9. Leave the plate on the magnetic separation device for 5 minutes to air dry the Mag-Bind® Total Pure NGS. Remove any residual liquid with a pipettor. It is important to dry the Mag-Bind® Total Pure NGS before elution. Residual ethanol may interfere with downstream applications. Incubating the plate at 37°C can speed up evaporation.

ELUTE

10. Remove the plate from magnetic separation device.
11. Add 30 µL Elution Buffer (not provided) to each well. Pipet up and down 20 times or vortex for 30 seconds. Let sit at room temperature for 2-3 minutes.
12. Place the plate on a magnetic separation device to magnetize the Mag-Bind® Total Pure NGS. Let sit at room temperature until the Mag-Bind® Total Pure NGS is completely cleared from solution.
13. Transfer the cleared supernatant containing purified DNA to a new 384-well microplate and seal with non-permeable sealing film.
14. Store the plate at 2-8°C if storage is only for a few days. For long-term storage, samples should be kept at -20°C.