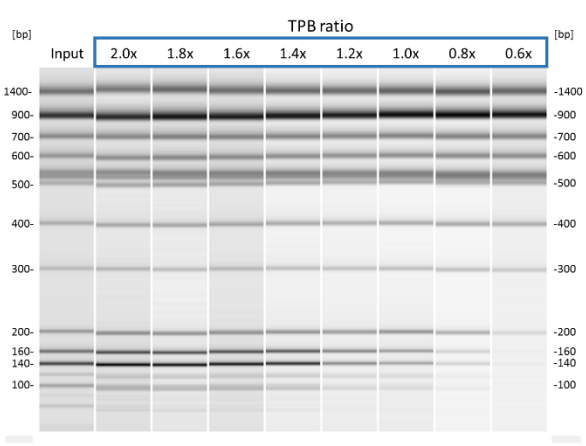
TM601
Ref# U16G03001

TailorMag Purification Beads (Cat# TM-601)

The **TailorMag Purification Beads** provide a convenient mean on nucleic acid purification. Its proprietary formula facilitates sample handling and enable efficient recovery of samples.

Wide range of applications:

- DNA and RNA purification
- PCR amplicon clean up
- Microbe gDNA extraction
- Nucleic acid size selection
- Buffer exchange for downstream processing



Efficiency is further optimized when the **TailorMag 12-Tube PCR Magnetic Stand** is used.

- Fast separation: as fast as 15 seconds
- Low volume capacity: as little at 5 µL
- Clean sample recovery with no bead contamination
- Compatible with 200 µL PCR tubes, 8-well and 12-well strip tubes
- Clear view of sample wells facilitate handling

Description	Catalog No.	Storage Condition
TailorMag Purification Beads, 5mL	TM-601-5	4°C
TailorMag Purification Beads, 10mL	TM-601-10	4°C
TailorMag Purification Beads, 50mL	TM-601-50	4°C
TailorMag 12-Tube PCR Magnetic Stand	TM-700	n/a

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Consumables Preparation

Make sure all equipment is available before starting this experiment (Table 1).

Table 1 List of Consumables and Equipment

Consumables and Equipment	Supplier
TailorMag 12-Tube PCR Magnetic Stand	SeqMatic
1.5 mL tube Magnetic stand (optional)	General lab supplier
Tube shaker or vortex mixer	General lab supplier
Bench top microcentrifuge	General lab supplier
Sterile pipette tips	General lab supplier
Single channel pipettes	General lab supplier
Multi-channel pipettes (if operating in strip tube format)	General lab supplier
Nuclease-free 200 µL PCR tubes	General lab supplier
Nuclease-free 8-well or 12-well strip tubes pipettes (if operating in strip tube format)	General lab supplier
1.5 or 2mL Nuclease-free microcentrifuge tubes (optional)	General lab supplier
Fresh 80% Ethanol	General lab supplier
TE Buffer (for DNA samples)	General lab supplier
Nuclease-free water (for RNA samples)	General lab supplier

Protocol: DNA and RNA Purification

1. Vortex the TailorMag Purification Beads (TPB) until they are evenly suspended.

2. Prepare fresh 80% ethanol for rinse step.

3. Add 1.8x volume of TPB to samples. Vortex mix thoroughly and pulse spin.
Incubate at room temperature for 5 minutes.

Reagent	Fold Sample Volume
DNA or RNA samples	1x
TailorMag Purification Beads (TPB)	1.8x
Total	**2.8x**

Note: Do NOT perform strong centrifugation because it will separate TPB from the sample.
Note: Incubation time could be extended to up to 15 minutes for low input samples.

4. Place the sample tube on the TailorMag 12-Tube PCR Magnetic Stand at room temperature for 15 seconds or until the solution clears up.

5. Carefully remove and discard the supernatant.

Note: Leave approximately 5 µL of supernatant in the tube to avoid disruption of the TPB pellet. Sample recovery may be affected if the TPB pellet is disrupted.

6. Keep sample tube on the TailorMag 12-Tube PCR Magnetic Stand. Gently rinse the TPB pellet with 80% ethanol (150 µL or 5-fold of sample volume, whichever number is greater) without disrupting the TPB pellet. Discard the rinse solution.

Tip: Point pipette tip towards opposite direction as the TPB pellet. Gently pipette the 80% ethanol up and down once, then discard the rinse solution.

7. Air dry sample tube at room temperature.

Note: TailorMag Purification Beads are dried within 5 to 15 minutes at room temperature. Proceed to Step 8 when the appearance of the TPB pellet turns form glossy/shiny (wet) to matte (dry). Sample recovery may be affected if beads are over-dried and appear powdery.

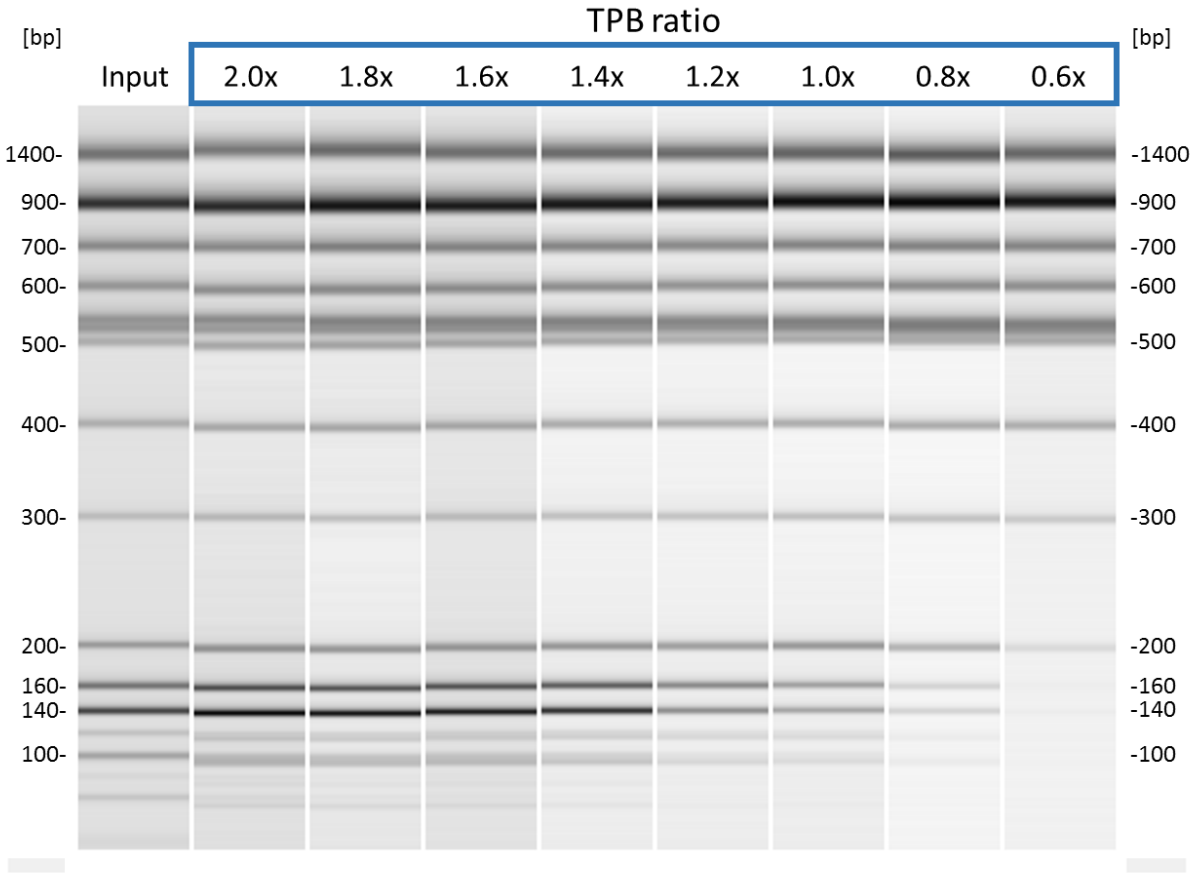
8. Remove sample tube from the TailorMag 12-Tube PCR Magnetic Stand. Resuspend dried TPB pellet with nuclease free water (for RNA samples) or TE buffer (for DNA samples). Vortex mix and pulse spin.

9. Incubate sample resuspension at room temperature for 2 minutes.

10. Place the sample tube on the TailorMag 12-Tube PCR Magnetic Stand at room temperature for 30 second or until the solution is clear.

11. Transfer the supernatant (contains purified nucleic acids) into a fresh sample tube.

Gel Image from Agilent High Sensitivity DNA Assay



Protocol: Removal of Small DNA fragments

1. Vortex the TailorMag Purification Beads (TPB) until they are evenly suspended.

2. Prepare fresh 80% ethanol for rinse step.

3. Add the required volume of TPB to each sample in the PCR tube (see Table 1 for recommendation). Votex mix thoroughly and pulse spin.

   Note: Volume of sample [µL] x TPB ratio = Required volume of TPB

   Note: Do NOT perform strong centrifugation because it will separate TPB from the sample.

Table 1: Recommended TPB ratio for small DNA fragment removal

Retention Region	Recommended TPB ratio
All sizes	1.8x
140bp and up	1.4x
200bp and up	0.8x
300bp and up	0.6x

4. Incubate at room temperature for 5 minutes.

   Note: Incubation time could be extended to up to 15 minutes for low input samples.

5. Place the sample tube on the TailorMag 12-Tube PCR Magnetic Stand at room temperature for 15 seconds or until the solution clears up.

6. Carefully remove and discard the supernatant.

   Note: Leave approximately 5 µL of supernatant in the tube to avoid disruption of the TPB pellet. Sample recovery may be affected if the TPB pellet is disrupted.

7. Keep sample tube on the TailorMag 12-Tube PCR Magnetic Stand. Gently rinse the TPB pellet with 80% ethanol (150 µL or 5-fold of sample volume, whichever number is greater) without disrupting the TPB pellet. Discard the rinse solution.

   Tip: Point pipette tip towards opposite direction as the TPB pellet. Gently pipette the 80% ethanol up and down once, then discard the rinse solution.

8. Air dry sample tube at room temperature.

   Note: TailorMag Purification Beads are dried within 5 to 15 minutes at room temperature. Proceed to Step 8 when the appearance of the TPB pellet turns form glossy/shiny (wet) to matte (dry). Sample recovery may be affected if beads are over-dried and appear powdery.

9. Remove sample tube from the TailorMag 12-Tube PCR Magnetic Stand. Resuspend dried TPB pellet with nuclease free water (for RNA samples) or TE buffer (for DNA samples). Vortex mix and pulse spin.

10. Incubate sample resuspension at room temperature for 2 minutes.

11. Place the sample tube on the TailorMag 12-Tube PCR Magnetic Stand at room temperature for 30 second or until the solution is clear.

12. Transfer the supernatant (contains purified nucleic acids) into a fresh sample tube