

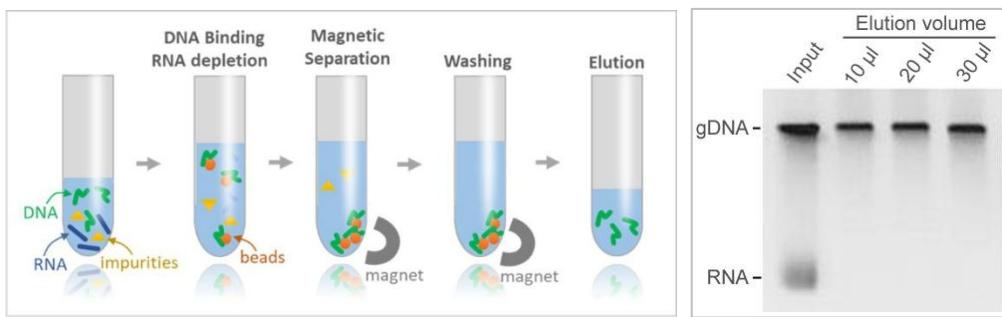
RNase-free RNA Removal (Magnetic Beads)

Catalog No.	47061S	47061L
Volume	5 mL	20 mL

Description

We have developed **RNase-free RNA Removal (Magnetic Beads)** to remove RNA contamination in DNA samples based on Solid Phase Reversible Immobilization (SPRI) beads without using RNase A. DNA extraction is one of the essential steps in the field of molecular biology. However, it is common that the extracted DNA is contaminated with RNA, and it is critical to remove RNA contamination from the DNA samples to reduce the impact on the downstream applications.

RNase A is a popular enzyme for the removal of RNA from DNA samples. However, an RNase-free environment is required for laboratories working with RNA samples because the use of RNase can cause the degradation of RNA samples, leading to poor sample quality and inaccurate experiment results. The conflict of RNA removal by RNase and RNase-free environment still exists in the laboratories.



Our RNase-free RNA Removal (Magnetic Beads) solved the conflict by combining the reversible DNA-binding properties of SPRI magnetic beads with BioDynami's unique chemistries. The magnetic beads effectively removes RNA and recovers DNA in the same step without using RNase A. Moreover, unwanted components such as salts, enzymes, proteins, and other impurities can also be removed.

The purified DNA can be used for downstream applications such as enzymatic treatment, microarray, PCR, QPCR, and next generation sequencing (NGS). The magnetic beads can be an effective and inexpensive reagent for RNA removal for routine DNA purification for laboratories that require an RNase-free environment.

Features

- RNase-free environment compatible
- Effective removal of RNA without RNase A
- High recovery rate of DNA
- Low elution volume
 - As low as 10 μ L
- Simple and fast beads-based protocol:
 - Less than 20 min
- Removal of unwanted components and impurities

Component

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RNase-free RNA Removal (Magnetic Beads)	5 mL	20 mL

Storage Condition

- Store at 4°C, stable up to 12 months.

Reagent & Equipment Needed (not provided in this reagent)

- Magnetic particle concentrator
- 96-well PCR plate or 1.5 ml tubes
- Thermal cycler, incubator, or heat block
- 80% ethanol (prepare before use)

Protocol

- 1) Add 1X volume of the beads to the tubes/96-well plates containing samples. Mix by vortexing or pipetting thoroughly. **Note:** Invert or shake the beads bottle to thoroughly resuspend the beads. Slow pipetting of the viscous beads is needed for precise aliquots.
- 2) Incubate samples at 56°C for 10 min.
- 3) Load the sample plate on a magnet, incubate for 3 min, and discard the supernatant carefully.
- 4) Washing
 - Samples in 96-well plates: add 180 µl of 80% ethanol without disturbing the beads. Incubate for 2 min and discard the supernatant carefully. Remove all residual ethanol without disturbing the beads. Repeat the 80% ethanol wash one more time.
 - Samples in 1.5 ml tubes: add 800 µl of 80% ethanol without disturbing the beads. Incubate for 2 min and discard the supernatant carefully. Remove all residual ethanol without disturbing the beads. Repeat the 80% ethanol wash one more time.
- 5) Air-dry the beads on the magnet for 1-2 min.
- 6) Remove the plate from the magnet and resuspend the beads in >10 µl of Tris-HCl (10 mM, pH 8.0), Low TE Buffer, TE Buffer, or water (pH >6.0). **Note:** Resuspending the beads in less than 10 µl may reduce the yield.
- 7) Load the plate on the magnet, incubate for 1 min, and transfer the supernatant (containing DNA) to a new tube without disturbing the beads.

Quality Control

Magnetic beads components passed stringent functional quality test.

Product Use Limitation

This product is developed and sold for research purposes and *in vitro* use only. Please refer to biodynamami.com for Material Safety Data Sheet of the product.

Limited Label License

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