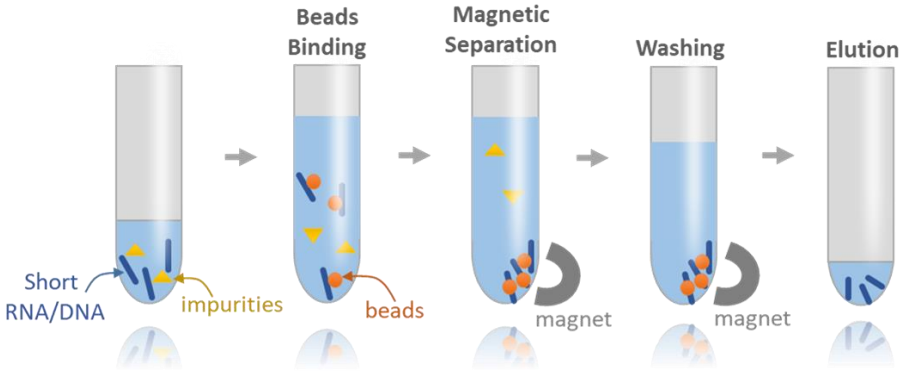
Magnetic Beads (microRNA & Oligo Purification)

Catalog No.	40052S	40052M	40052L
Volume	5 mL	20 mL	100 mL

Description

Solid Phase Reversible Immobilization (SPRI) beads are often used for DNA purification because they are simple, fast, and effective. The beads are paramagnetic particles coated with carboxyl groups that reversibly bind to nucleic acid. However, SPRI beads can only purify DNA/RNA fragments that are 100 base pairs or longer. DNA/RNA fragments shorter than 100 base pairs are not effectively recovered.

We have developed **Magnetic Beads (microRNA & Oligo Purification)**. Our proprietary bead technology overcomes the hurdle of the short DNA/RNA recovery problem. The beads purify short DNA/RNA purification effectively by removing impurities and unwanted components such as dNTPs, detergents, salts, proteins, and other contaminants. The magnetic bead reagents are RNase free, and can be used for both DNA and RNA applications.



Our Magnetic Beads are optimized to selectively purify microRNA and DNA/RNA fragments that are as short as 20 nt. Purified short DNA and RNA fragments are ideal for applications requiring high quality fragments, as the fragments are free of impurities and contaminants.

Features

- Effective purification of short DNA and RNA samples
  - microRNA
  - dsDNA fragments 20 bp or longer
  - ssDNA fragments 20 nt or longer
  - RNA fragments 20 nt or longer
  - DNA/RNA hybrid fragments 20 nt or longer
  - Oligo and chimeric oligo 20 nt or longer
- Removal of impurities and unwanted reaction components

Component

Catalog No.	40052S	40052M	40052L
Magnetic Beads	5 mL	20 mL	100 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 Eppendorf tubes
- 80% ethanol (prepare before use)

Protocol

Note: Invert or shake the bottle to thoroughly resuspend the beads and put the bottle on ice before use.

1) Transfer 30-40 ul of samples to a 96-well plate on ice.
    a. If sample volume is less than 30 µl, increase the volume to 30 µl by adding water.
    b. If sample volume is greater than 40 µl, divide samples to more wells. Add water if the divided sample is less than 30 µl.
2) Transfer 2X volumes of the beads to the wells containing samples. Slow pipetting of the viscous beads is needed for precise aliquot. Mix by pipetting gently and thoroughly. Incubate for 5 min on ice.
3) Load the sample plate on a magnet, incubate for 8 min, and discard the supernatant carefully.
4) Add 180 µl of 80% ethanol without disturbing the beads. Incubate for 1 minute and discard the supernatant carefully. Remove all residual ethanol without disturbing the beads.
5) Air-dry the beads on the magnet for 5 min.
6) Remove the plate from the magnet and resuspend the beads in 30 µl of water or Tris-HCl (10 mM). **Note**: Resuspend the beads in less than 30 µl will reduce the yield.
7) Load the plate on the magnet, incubate for 1 min, and transfer supernatant (containing sample) 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 BioDynami.com for Material Safety Data Sheet of the product.

Limited Label License

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