

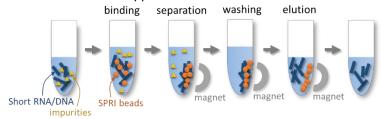
# Magnetic Beads (microRNA & Oligo Purification)

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
  - o microRNA
  - o dsDNA fragments 20 bp or longer
  - o ssDNA fragments 20 nt or longer
  - RNA fragments 20 nt or longer
  - o DNA/RNA hybrid fragments 20 nt or longer
  - o 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  $\mu$ l, increase the volume to 30  $\mu$ l 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.
- 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**

The product is developed and sold exclusively for research purposes and *in vitro* use only. The product or its any individual component has not been tested for use in diagnostics or drug development, and is not suitable for administration to human or animal.

The purchaser of this product is granted a limited, non-transferable right to use the purchased amount of the product only for internal, research purposes for the sole benefit of the purchaser. The buyer cannot sell or otherwise transfer (i) this product (ii) its components or (iii) materials made using this product or its components to a third party or otherwise use this product or its components or materials made using this product or its components for commercial purposes. This product is for internal research purposes only and is not for use in commercial purposes of any kind. "Commercial purposes" includes any activity for which a party receives consideration and may include, but is not limited to, (1) use of the product or its components or derivatives in manufacturing, (2) transfer or sale of vectors made with the product or components or derivatives of the product, (3) use of this product or components or derivatives of the product made therefrom to provide a service, information, or data to a third party in return for a fee or other consideration, or (4) resale of the product or its components or derivatives, whether or not such product or its components or derivatives are resold for use in research. If the purchaser is not willing to accept the limitations of this limited use statement, BioDynami is willing to accept return of the products with a full refund. For information on obtaining additional rights, please contact support@BioDynami.com

# **BioDynami**

♠ 601 Genome Way, Huntsville, Alabama 35806, USA

https://BioDynami.com



Jun. 2022