



## cfDNA Extraction Magnetic Beads

### F1456624

**Storage:** 2-8°C. Do not freeze.

#### Introduction:

Cell-Free DNA Extraction Magnetic Beads are specialized magnetic solid-phase carriers designed for the efficient isolation of cell-free DNA (cfDNA). Through a unique manufacturing process, these beads exhibit enhanced magnetic properties and superior short-fragment capture ability. The surface silanol groups enable specific binding with nucleic acids under high-salt and low-pH conditions, ensuring high purity and yield of extracted cfDNA. Compatible with automated nucleic acid extraction platforms, this product streamlines the extraction process, making it more efficient and safer. It is widely applicable in life science research and clinical applications.

**Applications:** Suitable for extracting cell-free DNA from various samples, including serum, plasma, amniotic fluid, and other liquid biopsies.

| Catalog No. | Concentration | Particle Size | Synthesis Method       |
|-------------|---------------|---------------|------------------------|
| F1456624-01 | 50 mg/mL      | 200-400nm     | Hydrothermal Method    |
| F1456624-02 | 50 mg/mL      | 50-200nm      | Coprecipitation Method |

#### Key Features:

1. Excellent handling performance.
2. High specificity for short-fragment DNA adsorption.
3. Superior reproducibility.

#### Protocol:

1. Prepare lysed or dissolved sample solution.
2. Add an appropriate volume of magnetic beads and incubate.
3. Separate bead-bound nucleic acids from unbound materials using magnetic separation.
4. Wash beads with wash buffer to remove impurities; retain beads using a magnet.
5. Elute nucleic acids with elution buffer; separate beads from the final product magnetically.

#### Precautions:

1. Avoid freezing, drying, or centrifugation, as these operations may cause bead aggregation and affect resuspension.
2. Vortex thoroughly before use to ensure a uniform suspension.



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3. Storage: Stable for up to 2 years at 2–8°C. Slight color variations under normal storage conditions do not affect performance.
  4. For research use only.

