

Magnetic Blood DNA Extraction Kit

CE NMPA



Bottle format

96B format

96D format

1. Description

EmerTher® Magnetic Blood DNA Extraction Kit is used to extract DNA from whole blood, blood cells, plasma, serum and other body fluids. The Kit contains superparamagnetic nanoparticles and an efficient extraction system. The magnetic beads are coated through a unique process, enabling strong binding with nucleic acids and easy elution.

The experiment procedure is simple and efficient: 1) add sample to a lysis-binding solution to enable cell lysis, DNA release and DNA binding to magnetic beads; 2) apply magnetic force enabling easy wash of the beads with buffers; 3) elute DNA from the beads using an elution solution.

Extracted DNA can be directly used for gene sequencing, digestion, PCR amplification, library construction, Southern hybridization and other downstream applications.

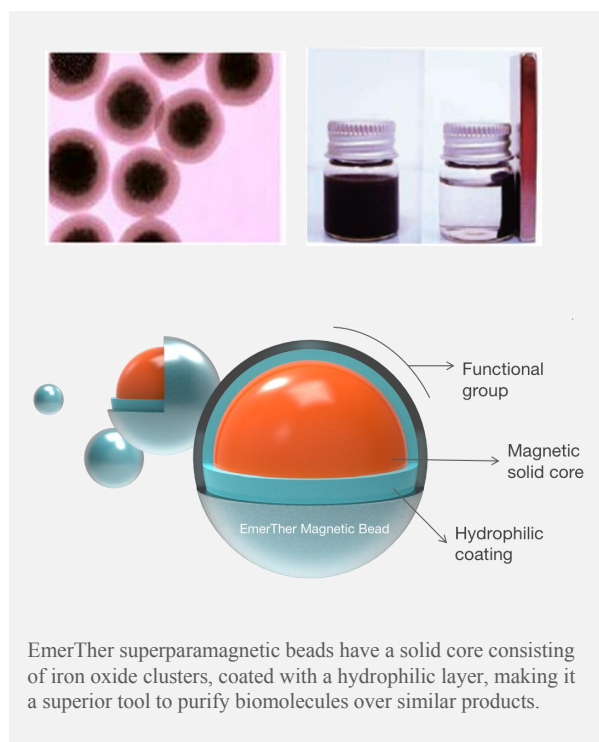
2. Features

High-throughput: fast extraction of genomic DNA from blood and other body fluids with high yield and high purity.

Eco-friendly: do not contain hazardous organic solvents for extraction.

Compatibility: compatible with various anticoagulants (EDTA, ACD, Heparin, etc.).

Automation: no liquid-liquid mixing or centrifugation process; therefore, the whole procedure can be easily automated.



EmerTher superparamagnetic beads have a solid core consisting of iron oxide clusters, coated with a hydrophilic layer, making it a superior tool to purify biomolecules over similar products.

Uniform nano-superparamagnetic bead mass production capacity + optimized technology and reagent formulation:

**Reliable and Efficient Extraction,
Originated from Core Technologies**

3. Performance

Representative Extraction Results Shown by Gel Electrophoresis and UV Data



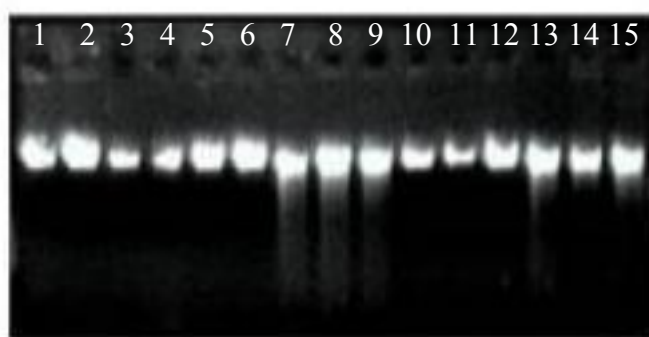
Gel electrophoresis of DNA extracted from whole blood

1. DNA marker;
- 2,4,6. DNA extracted from three blood samples;
- 3,5,7. Samples 2,4,6 after cut by EcoR endonucleases

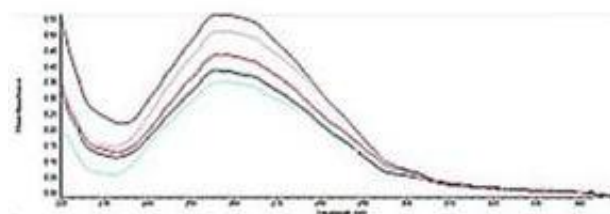


Gel electrophoresis of the PCR products using DNA extracted from blood as template

1. DNA marker; 2. Positive control; 3. Negative control;
- 4-7. PCR products using DNA extracted from blood (1 µL) as template



Gel electrophoresis of DNA extracted from blood samples
(Samples: 1-15 frozen blood, 200 µL per sample)



Absorption spectra of extracted DNA samples 1-5 (220-350 nm) demonstrated DNA had high purity and low salts. Spectra were scanned by Thermo Nanodrop 2000.

4. Components of the Kits

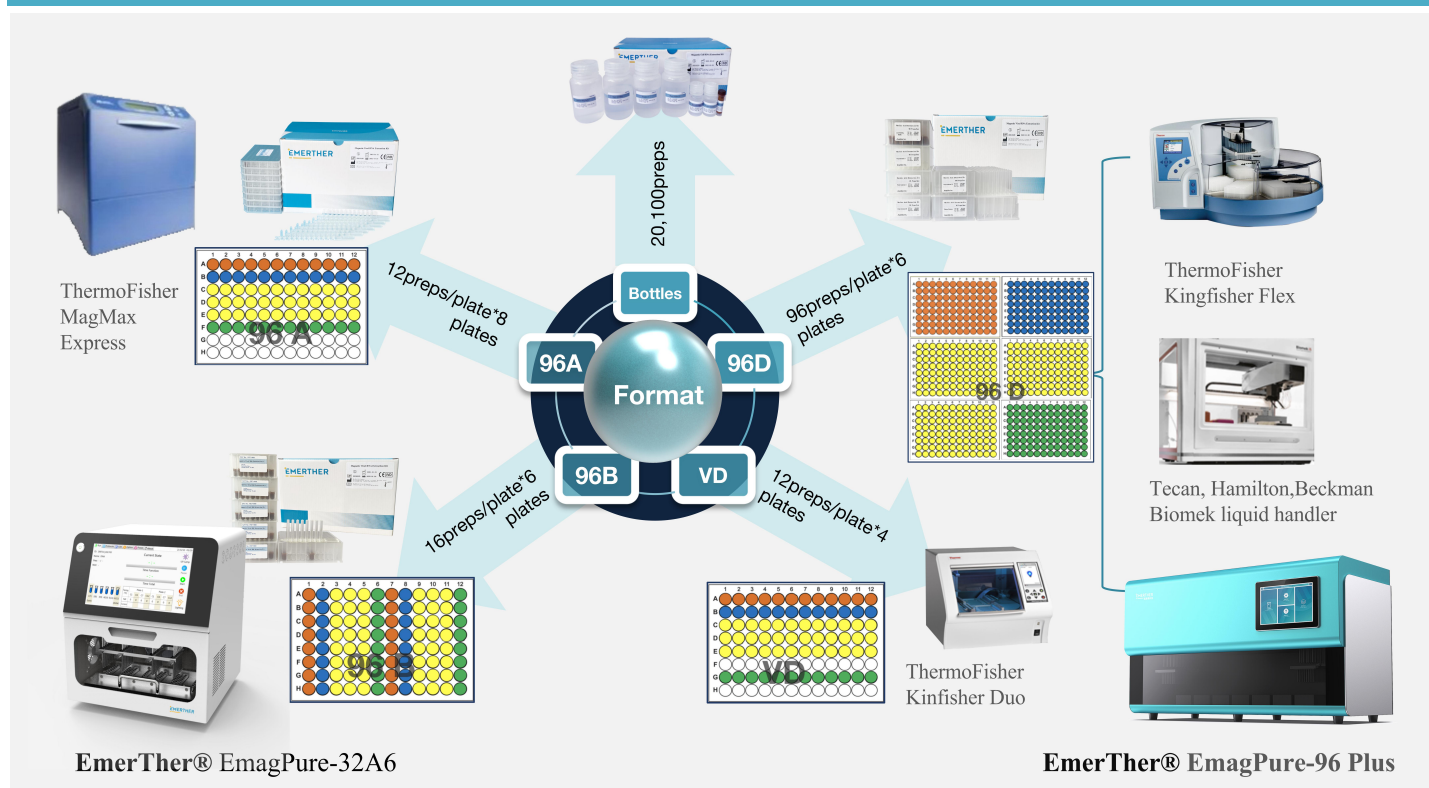
<i>Catalog No.</i>	<i>DE17001</i> <i>(20 preps)</i>	<i>DE17002</i> <i>(100 preps)</i>	<i>DE1796B</i> <i>(96 preps)</i>	<i>DE1796D</i> <i>(96 preps)</i>
Format	Bottles	Bottles	96-well plates	96-well plates
PK Dissolving Solution	0.4 mL	2 mL	2 mL	2 mL
Proteinase K	16 mg	80 mg	80 mg	80 mg
Magnetic Bead Suspension	1 mL	3 mL	Pre-filled with magnetic beads and extraction reagents, 6 plates; 12 magnetic tip combs (8-channel each)	Pre-packed with magnetic beads and extraction reagents, 6 plates; 1 magnetic tip combs (96-channel each)
Lysis-binding Buffer	15 mL	70 mL		
Wash Solution I	20 mL	80 mL		
Wash Solution II	20 mL	80 mL		
Wash Solution III	75% ethanol in water (prepared by user)			
Elution Solution	3 mL	12 mL		

No pretreatment is needed for whole blood samples.

5. Compatible instruments

Prefilled plates contain all necessary extraction reagents, plates and tip combs; ready to be used on most automatic nucleic acid extraction instruments/liquid handlers on the market (e.g. Thermo Kingfisher, Tecan, Hamilton, Beckman Biomek, and our own automatic extraction instruments, etc.).

Compatibility with a Variety of Automatic Nucleic Acid Extraction Instruments



Prefilled plates available for most automatic nucleic acid extraction instruments on the market;

Customization of plate format is also available

Magnetic Bead Core Technology for High Throughput & Automatic Solutions

IVD Manufacturer SINCE 2010

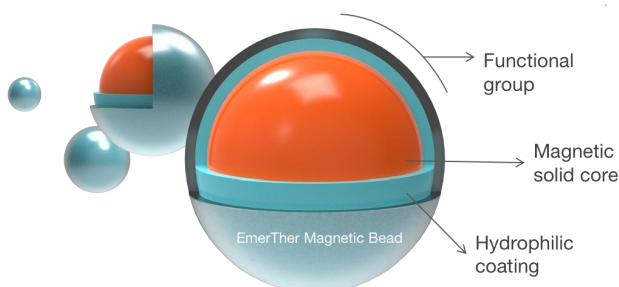
- Nucleic acid extraction
- Protein purification
- Nano-magnetic beads
- Automatic nucleic acid/protein purification instruments

Founded in 2010, the EmerTher Company is an IVD manufacturer specialized in the development and manufacture of nano-scale superparamagnetic beads and related products for biomedical applications.

We provide a number of high-quality, cost-effective products and ready-to-use solutions for biological sample collection, nucleic acid extraction, and protein purification, including:

- 3 viral transport media (non-inactivated; inactivated; inactivated without guanidine) and 3 swabs
- 20+ magnetic bead-based nucleic acid extraction kits
- 6 protein purification magnetic beads
- 6 functionalized magnetic beads
- 3 automatic nucleic acid extraction instruments
- 4 manual magnetic separators

With advanced technologies in nano-scale superparamagnetic bead products and *in vitro* diagnosis, we have helped our customers worldwide to implement automatic nucleic acid and protein extraction/purification procedures in their labs and customized products with high flexibility to meet their special needs.



EmerTher® Magnetic Nucleic Acid Extraction Reagent



**EmerTher®
EmagPure-32A6**



EmerTher® EmagPure-96 Plus