

# Magnetic Tissue DNA Extraction Kit



## 1. Description

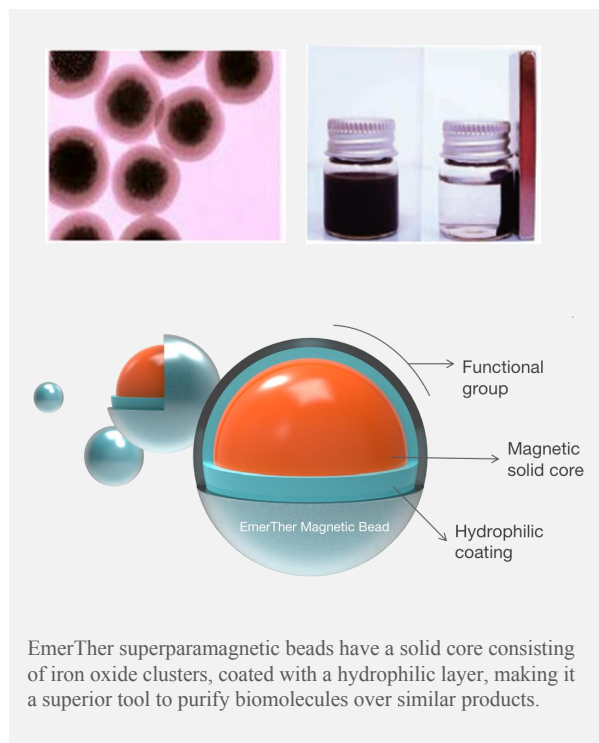
EmerTher® Magnetic Tissue DNA Extraction Kit is used to extract DNA from tissue samples.

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) after pretreatment, 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.

Purified DNA can be directly used for a variety of downstream applications.



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**

## 2. Features

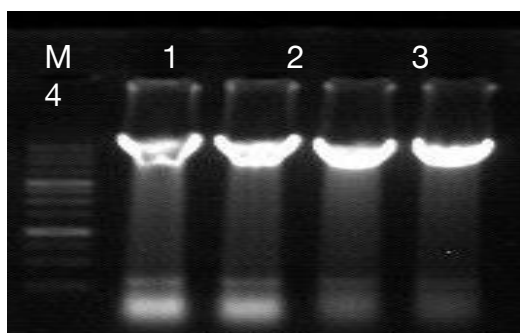
**High-throughput:** fast extraction of DNA from a variety of tissue samples.

**Automation:** The extraction procedure can be easily automated after sample pretreatment.

**Normalization kits are available:** can be used to normalize extracted DNA quantity, resulting in consistent DNA concentrations in eluate.

## 3. Performance

### Representative Extraction Results shown by Gel Electrophoresis and UV Data



Gel electrophoresis, concentration and purity determination of DNA extracted from four mouse tails

M: MW marker

Sample No.	OD260/280	OD260/230	Conc. (ng/ $\mu$ L)	Total DNA ( $\mu$ g)
Sample 1	1.94	2.06	186.4	18.6
Sample 2	1.93	2.04	143.5	14.4
Sample 3	2.00	1.20	120.5	12.0
Sample 4	1.99	1.17	118.6	11.8

Sample weight: ~20 mg/each

## 4. Components of the Kits

Catalog No.	DE05001 (20 preps)	DE05002 (100 preps)	DE0596B (96 preps)	DE0596D (96 preps)
Format	Bottles	Bottles	96-well plates	96-well plates
PK Dissolving Solution	0.4 mL	2 mL	2 mL	2 mL
Proteinase K	8mg	40 mg	40 mg	40 mg
Tissue Digestion Solution	6 mL	30 mL	30 mL	30 mL
Magnetic Bead Suspension	0.3 mL	1.5 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	12 mL	60 mL		
Wash Solution I	15 mL	70 mL		
Wash Solution II	15 mL	70 mL		
Wash Solution III	75% ethanol in water (prepared by user)			
Elution Solution	3 mL	12 mL		

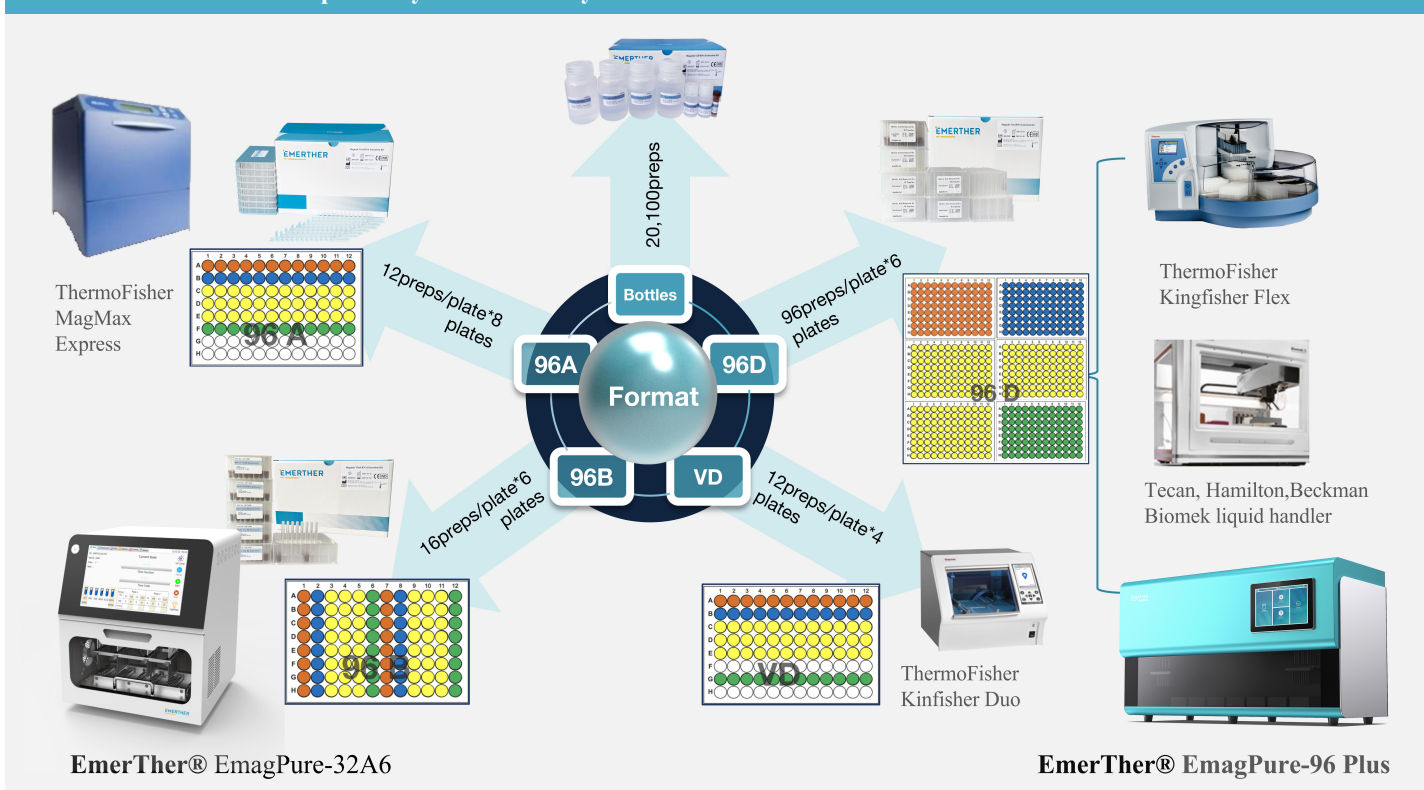
Pre-treatment of tissue samples:

Transfer 10-40 mg of tissue sample (cut into small pieces) into a 2 mL centrifuge tube, add 300 µL Tissue Homogenization Solution and glass beads, mill the sample using a bead mill homogenizer (40Hz, 60 sec). Centrifuge at 5,000 g for 5 min.

## 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.

# 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

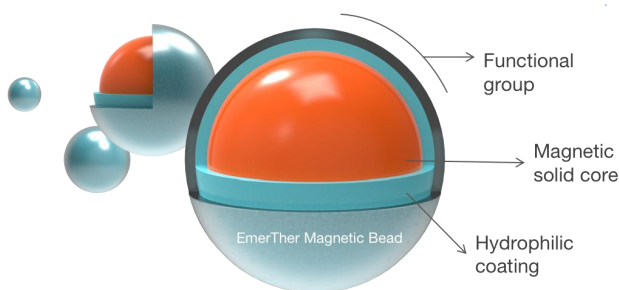


Founded in 2010, the EmerTher Company is an IVD manufacturer specialized in the development and manufacture of nano-scale superparamagnetic beads and related products for biomedical applications.

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®**  
EmagPure-32A6



**EmerTher®** Magnetic Nucleic Acid Extraction Reagent



**EmerTher®** EmagPure-96 Plus