

Magnetic Tissue RNA Extraction Kit

CE NMPA



1. Description

EmerTher® Magnetic Tissue RNA Extraction Kit is used to extract RNA 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, RNA release and RNA binding to magnetic beads; 2) apply magnetic force enabling easy wash of the beads with buffers; 3) elute RNA from the beads using an elution solution.

Purified RNA can be directly used for subsequent experiments.

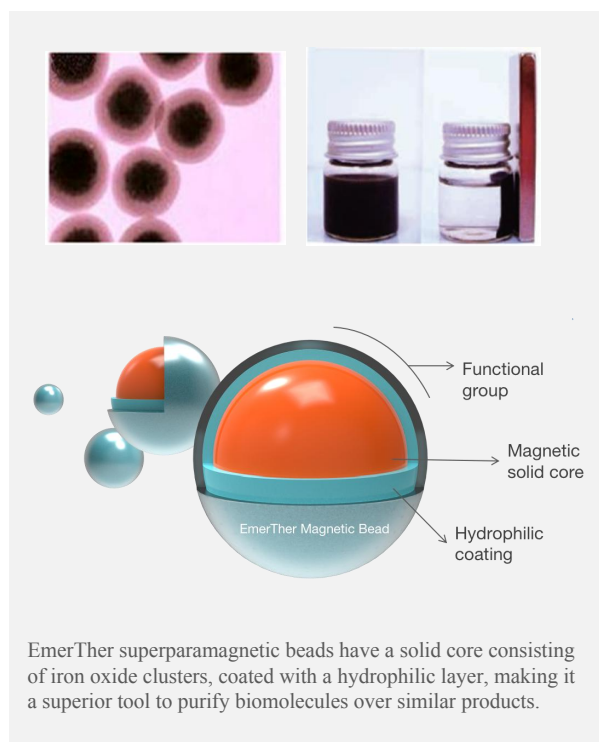
2. Features

High-throughput: fast purification, complete the automatic purification process within 30 min.

Eco-friendly: do not contain hazardous organic solvents, such as phenol or chloroform.

Keep RNA stable: enable stabilization of readily degraded RNA during extraction.

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



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:

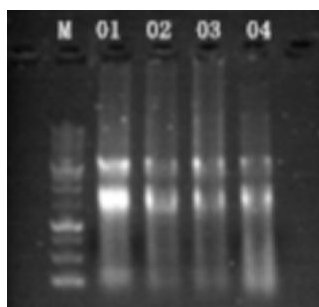
**Reliable and Efficient Extraction,
Originated from Core Technologies**

3. Performance

Experiment 1

Representative Extraction Results shown by Gel Electrophoresis and UV Data

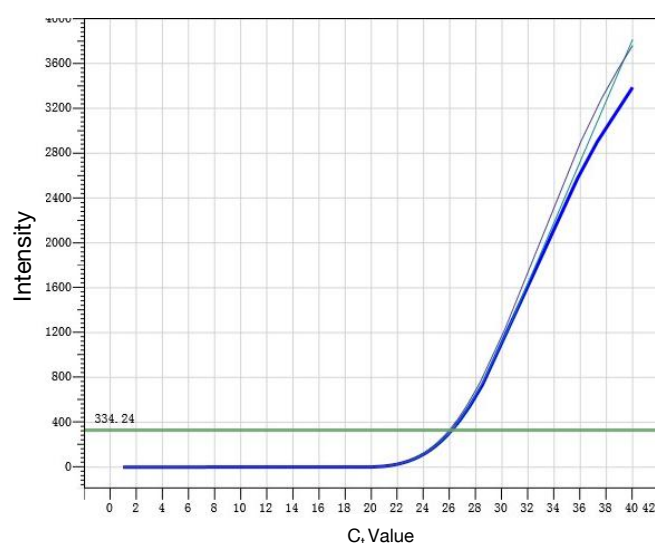
Gel electrophoresis, concentration and purity determination of RNA extracted from four shrimp tissue samples (30 mg each)



Sample No.	OD260/280	OD260/230	Conc. (ng/μL)	Total DNA (μg)
Sample 1	2.09	2.36	210.73	21.1
Sample 2	2.06	2.36	217.41	21.7
Sample 3	2.10	1.57	212.78	21.2
Sample 4	2.08	2.51	190.36	19.0

Experiment 2

Representative Extraction Results shown by PCR Test



PCR data of RNA extracted from rat tails (2 mg each)

Sample No.	C _t values
Sample 1	26.2
Sample 2	26.2
Sample 3	26.0

4. Components of the Kits

Catalog No.	RE03001 (20 preps)	RE03002 (100 preps)	RE0396B (96 preps)	RE0396D (96 preps)
Format	Bottles	Bottles	96-well plates	96-well plates
Tissue Homogenization Tube	20	100	96	96
Magnetic Bead Suspension	0.4 mL	2 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	12 mL	60 mL		
Wash Solution II	12 mL	60 mL		
Wash Solution III	24 mL	120 mL		
Elution Solution	2 mL	10 mL		

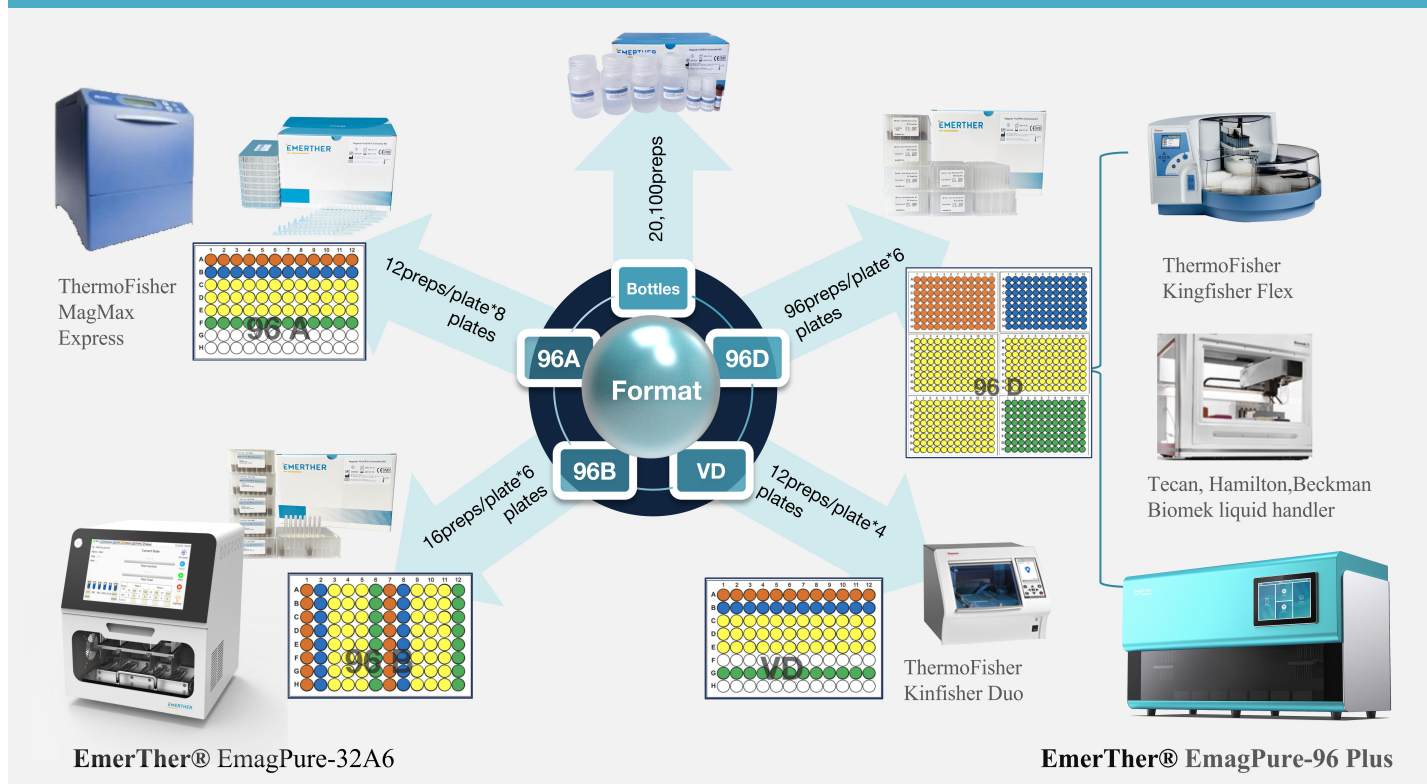
Pre-treatment of tissue samples:

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 12,000 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

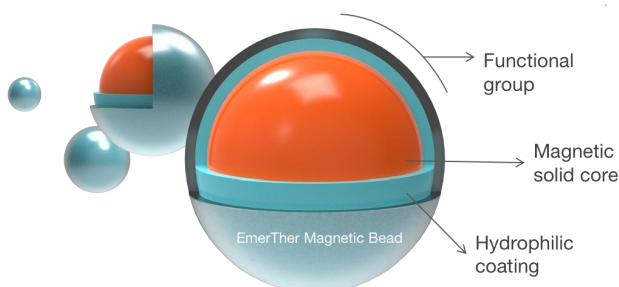
- Nucleic acid extraction
- Protein purification
- Nano-magnetic beads
- Automatic nucleic acid/protein purification instruments

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® Magnetic Nucleic Acid Extraction Reagent



**EmerTher®
EmagPure-32A6**



EmerTher® EmagPure-96 Plus