

Magnetic Viral DNA Extraction Kit



1. Description

EmerTher® Magnetic Viral DNA Extraction Kit is used for extraction of viral DNA from liquid samples, such as blood, plasma, swab specimen, etc.

The kit is composed of superparamagnetic nanoparticles and an efficient extraction reagent system. With unique surface modification, the magnetic beads form strong binding with nucleic acids and also enable easy elution.

The experiment procedure is simple and efficient:

1) add sample to a lysis-binding buffer to enable cell lysis, DNA release and DNA binding to magnetic beads; 2) apply magnetic force enabling easy wash of the beads with wash solutions; 3) elute DNA from the beads using an elution solution.

Purified DNA can be directly used for subsequent experiments. The whole procedure is fully compatible with automation.

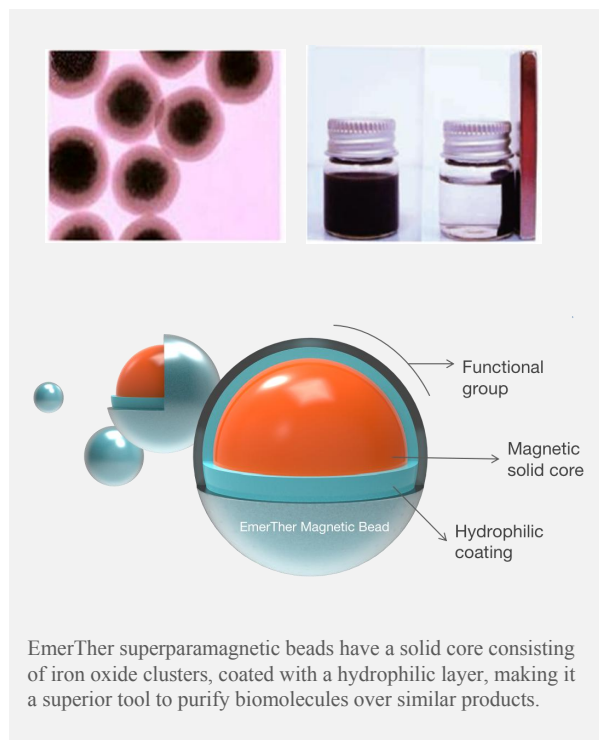
2. Features

High-speed: fast DNA extraction process.

Safety: inactivate microorganisms at the first step to avoid the spread of infectious substances.

Performance: stable and consistent extraction efficiency.

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.

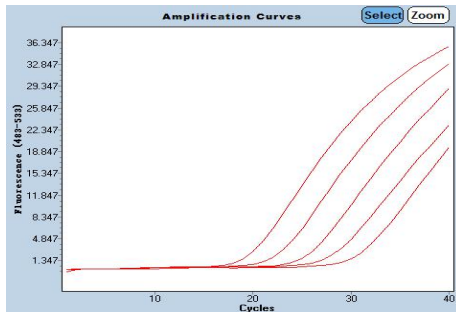
Uniform nano-superparamagnetic bead mass production capacity + optimized technology and reagent formulation:

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

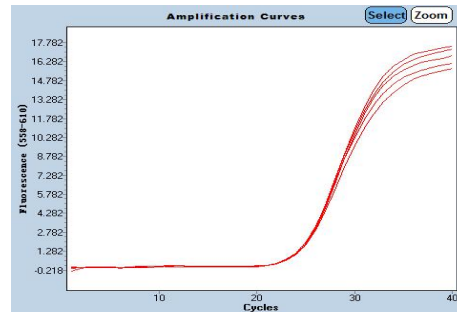
3. Performance

Experiment 1

RT-PCR results of HBV positive samples extracted using EmerTher viral DNA extraction kit after serial dilution in human serum (10^2 - 10^6 IU/mL range)



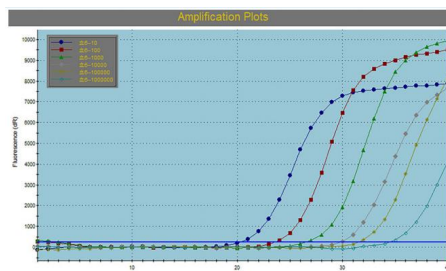
HBV amplification curves of serially diluted samples



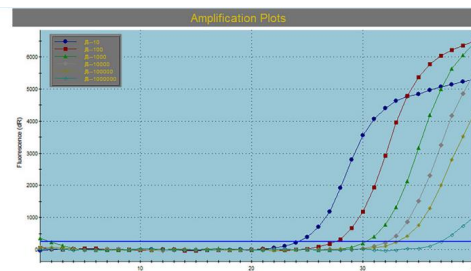
Internal standard amplification curves of serially diluted samples

Experiment 2

RT-PCR results of serially diluted African swine fever virus samples extracted using EmerTher magnetic viral DNA extraction kit

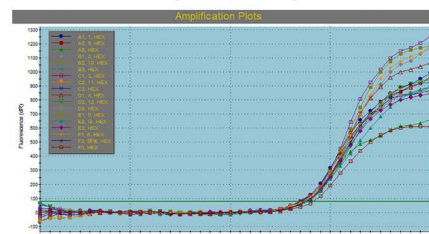


Blood samples



Nasopharyngeal samples

Dilution fold	Blood samples (Ct)	Nasopharyngeal samples (Ct)
10	20.39	24.29
100	23.68	27.59
1000	26.62	30.34
10000	29.90	32.23
100000	31.60	33.13
1000000	34.50	37.00



Internal STD

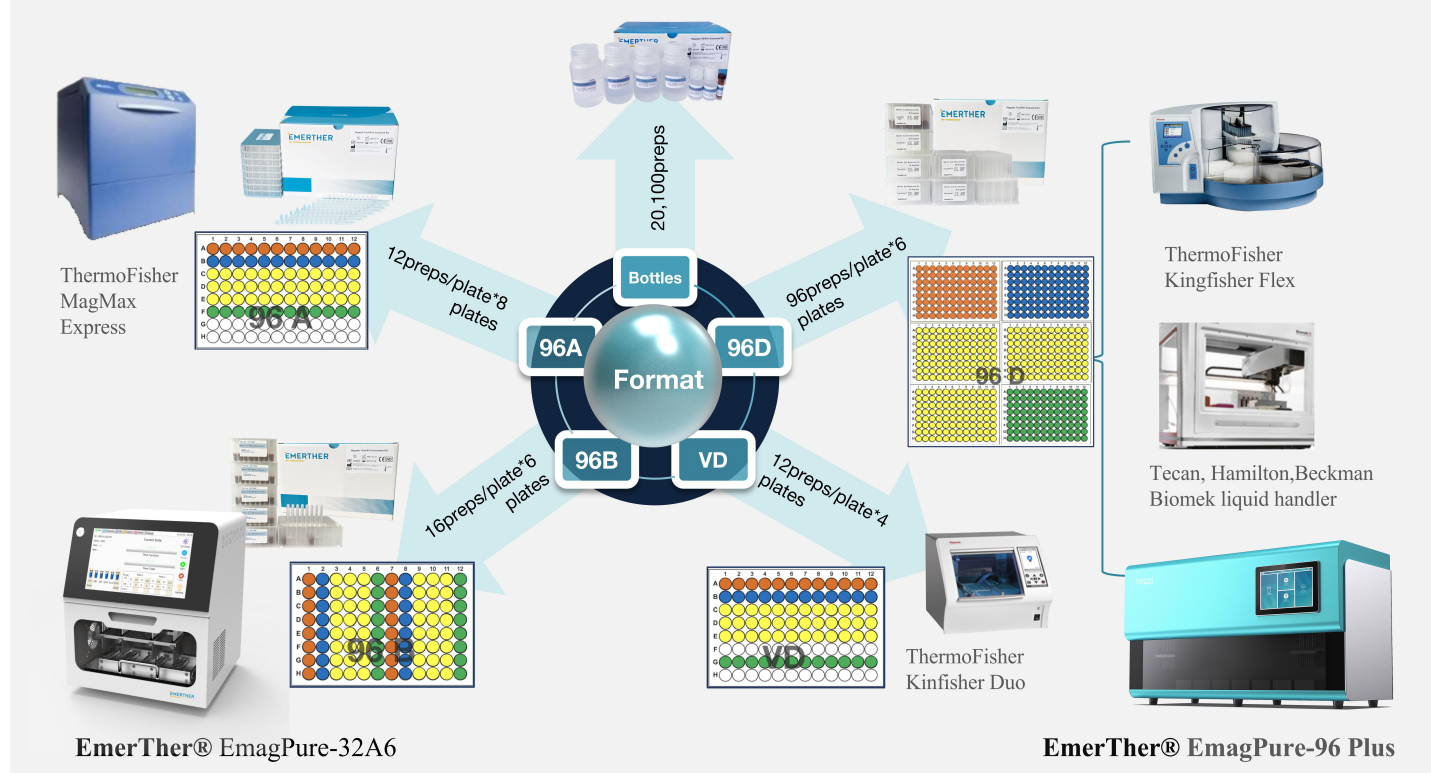
4. Components of the Kits

Catalog No.	DE06001 (20 preps)	DE06002 (100 preps)	DE0696B (96 preps)	DE0696D (96 preps)
Format	Bottles	Bottles	96-well plates	96-well plates
Proteinase K	20 mg	40 mg	40 mg	40 mg
PK Dissolving Solution	1 mL	2 mL	2 mL	2 mL
Magnetic Bead Suspension	0.4 mL	2 mL	6 plates prefilled with magnetic beads and extraction reagents; 12 magnetic tip combs (8-channel each)	6 plates prefilled with magnetic beads and extraction reagents; 1 magnetic tip comb (96-channel)
Lysis-binding Buffer	12 mL	60 mL		
Wash Solution I	12 mL	60 mL		
Wash Solution II	12 mL	60 mL		
Wash Solution III	75% ethanol (prepared by user)			
Elution Solution	2 mL	10 mL		

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

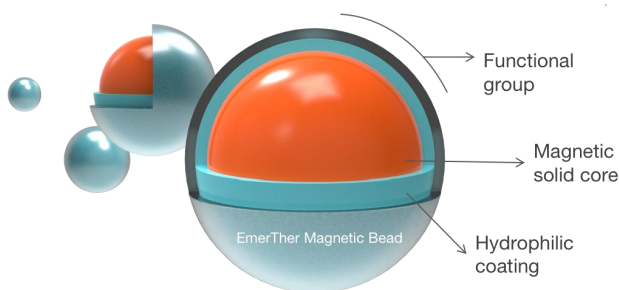


Founded in 2010, the EmerTher Company is an IVD manufacturer specialized in the development and manufacture of nano-scale superparamagnetic beads and related products for biomedical applications.

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