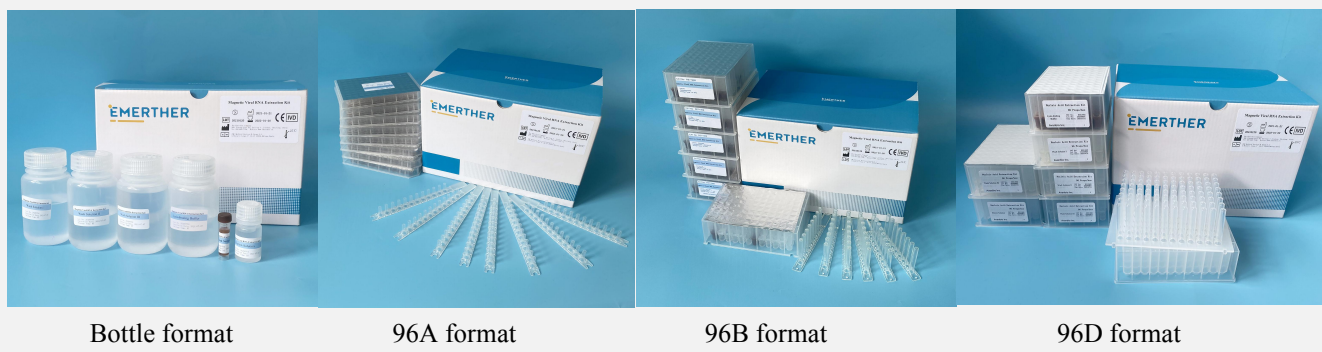


Magnetic Viral RNA/Total Viral NA Extraction Kit

CE NMPA



1.Description

EmerTher® Magnetic Viral RNA Extraction Kit is used to extract viral RNA from swab transport media, sputum, respiratory lavage fluid, serum, plasma, environmental samples, etc.

EmerTher® Magnetic Total Viral NA Extraction Kit is used to extract both viral DNA and RNA from biological samples, so it has a broader application and can be used in molecular diagnosis of both DNA and RNA viruses.

The kits are 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. Extracted nucleic acids can be used directly in the subsequent molecular diagnosis, including RT-PCR tests.

2.Applications

Extract DNA & RNA of various viruses

COVID-19, Coronavirus, Flu Virus, Norovirus, HIV, HPV, Enterovirus, SARS Virus, Diarrhea Virus, Swine Fever Virus, HBV, HCV.....

3.Features

Rapid Extraction: 12-20 min to complete viral RNA extraction process;
no need to use proteinase K for RNA extraction

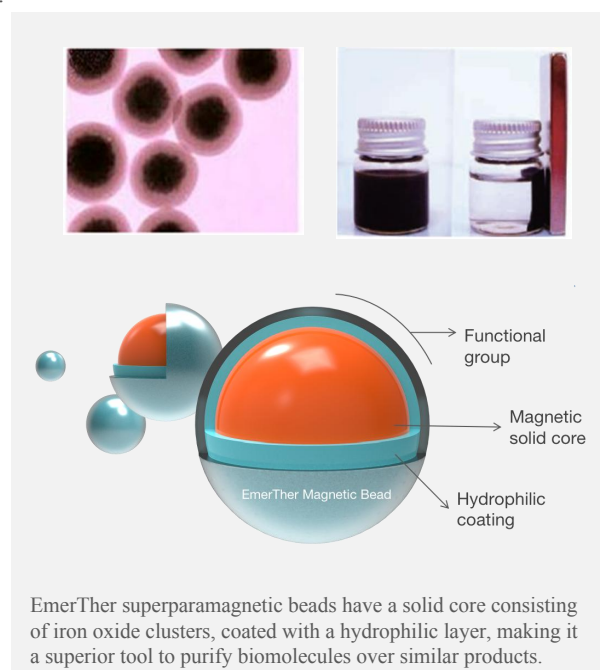
Convenient: ship and store at room temp; shelf time: 2 years

High Extraction Efficiency: extract trace nucleic acids (<10 IU/mL), protect easily degradable RNA, and reduce false negative results

Biosafe: no need for lysis at high temperature, reducing the formation of aerosol and the risk for infection of professional personnel; free of toxic organic reagents such as phenol and chloroform

Reducing Cross-contamination: aerosol reduction can reduce cross-contamination and false positive results

Designed for Automation: Pre-filled plates can be used on Emerther® automatic nucleic acid extraction instruments and are also compatible with most other nucleic acid extraction instruments on the market



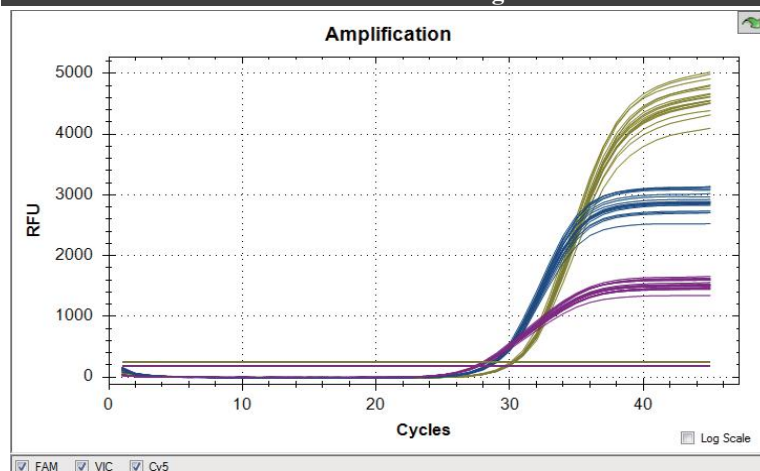
EmerTher superparamagnetic beads have a solid core consisting of iron oxide clusters, coated with a hydrophilic layer, making it a superior tool to purify biomolecules over similar products.

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

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

4. Performance

Precision Evaluation of EmerTher Magnetic Viral RNA Extraction Kit for 2019-nCoV RT-PCR Testing



Ct values	Detection channel		
	FAM-N	VIC-ORF	Cy5-IS
S2-1	28.84	30.17	27.45
S2-2	28.61	30.04	27.29
S2-3	28.89	30.24	27.50
S2-4	29.03	30.34	27.59
S2-5	29.00	30.21	27.49
S2-6	28.83	30.16	27.47
S2-7	28.75	30.20	27.47
S2-8	29.01	30.31	27.59
S2-9	29.03	30.25	27.58
S2-10	28.82	30.25	27.53
S2-11	28.98	30.33	27.56
S2-12	28.83	30.27	27.51
S2-13	28.91	30.27	27.46
S2-14	28.95	30.26	27.57
S2-15	28.81	30.16	27.35
S2-16	28.93	30.27	27.65
S2-17	29.09	30.38	27.72
S2-18	28.68	30.22	27.47
S2-19	28.73	30.16	27.49
S2-20	28.80	30.28	27.46
Average	28.88	30.24	27.51
CV	0.44%	0.26%	0.35%

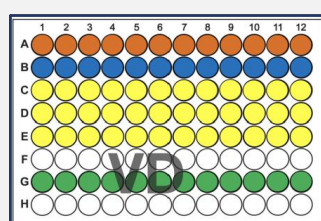
5. Components of the Kits

Catalog No.	RE01002/RD01002 (100 preps)	RE0196A/RD0196A (96 preps)	RE0196B/RD0196B (96 preps)	RE0196D/RD0196D (96 preps)
Format	Bottle	Prefilled plates	Prefilled plates	Prefilled plates
Magnetic Bead Suspension	1.5 ml	8 prefilled 96-well shallow plates, 8 tip combs (12-channel each)	6 prefilled 96-deep well plates, 12 tip combs (8-channel each)	4-6 prefilled 96-deep well plates, 1 tip comb (96-channel each)
Lysis-binding Buffer	60 ml			
Wash Solution I	60 ml			
Wash Solution II	60 ml			
Wash Solution III	60 ml			
Elution Solution	12 ml			

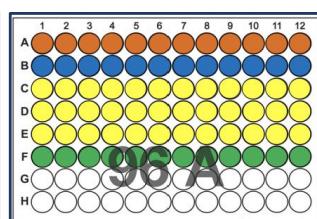
Prefilled plate format contains all necessary reagents, plates, tip combs, ready to be used on most automatic nucleic acid extraction instruments/liquid handlers on the market (e.g. Thermo Kingfisher, Tecan, Hamilton, Beckman Biomek, and our own automatic extraction instruments, etc.).

Prefilled plate format

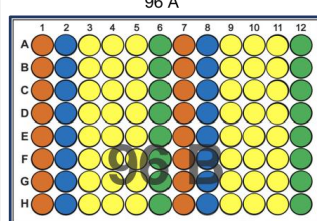
96A, 96B, 96D, VD



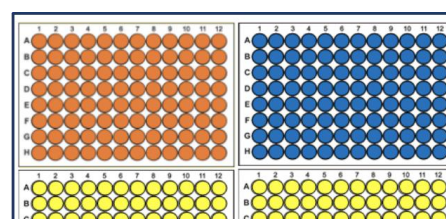
VD



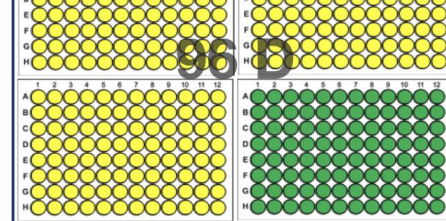
96 A



96 B

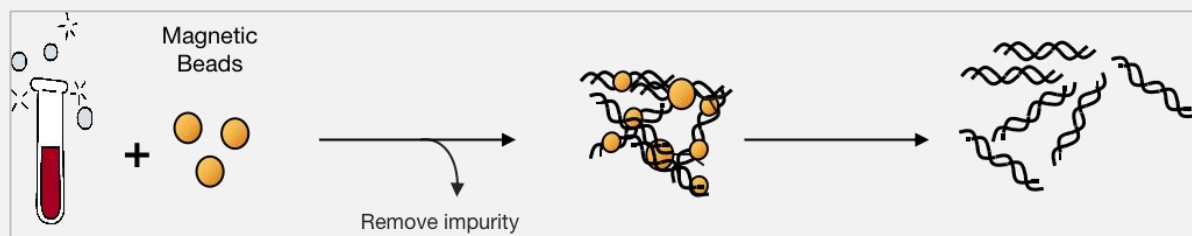


96 D



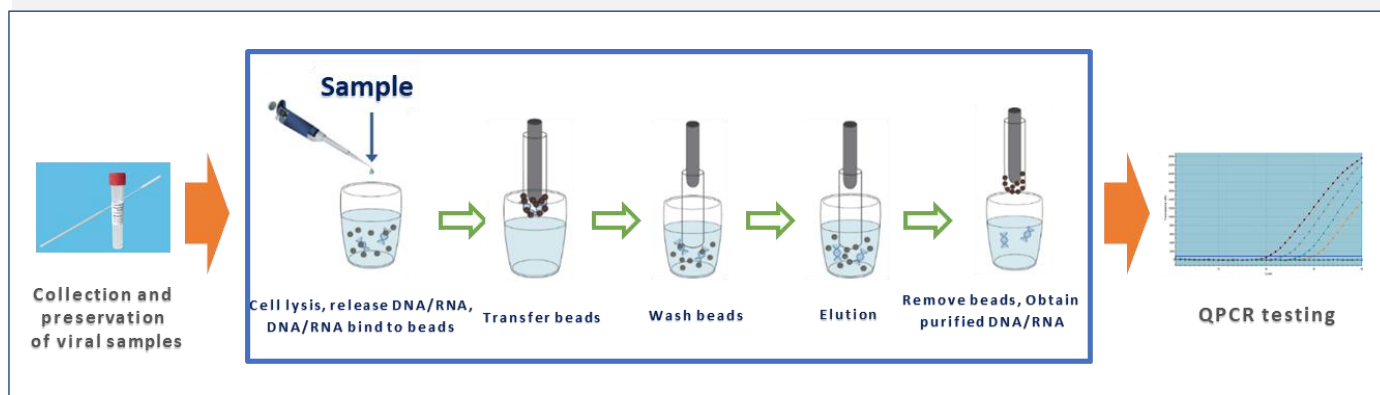
96 D

6. Experimental Procedures



Manual extraction procedure

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



Automatic extraction procedure

- 1) For bottle format: transfer reagents to plates; For prefilled plate format: take out pre-filled plates, remove aluminum cover.
- 2) Add clinical viral samples into individual vials.
- 3) Insert tip combs and place the plates onto an automatic nucleic acid extraction instrument. The instrument will automatically complete the whole extraction process.

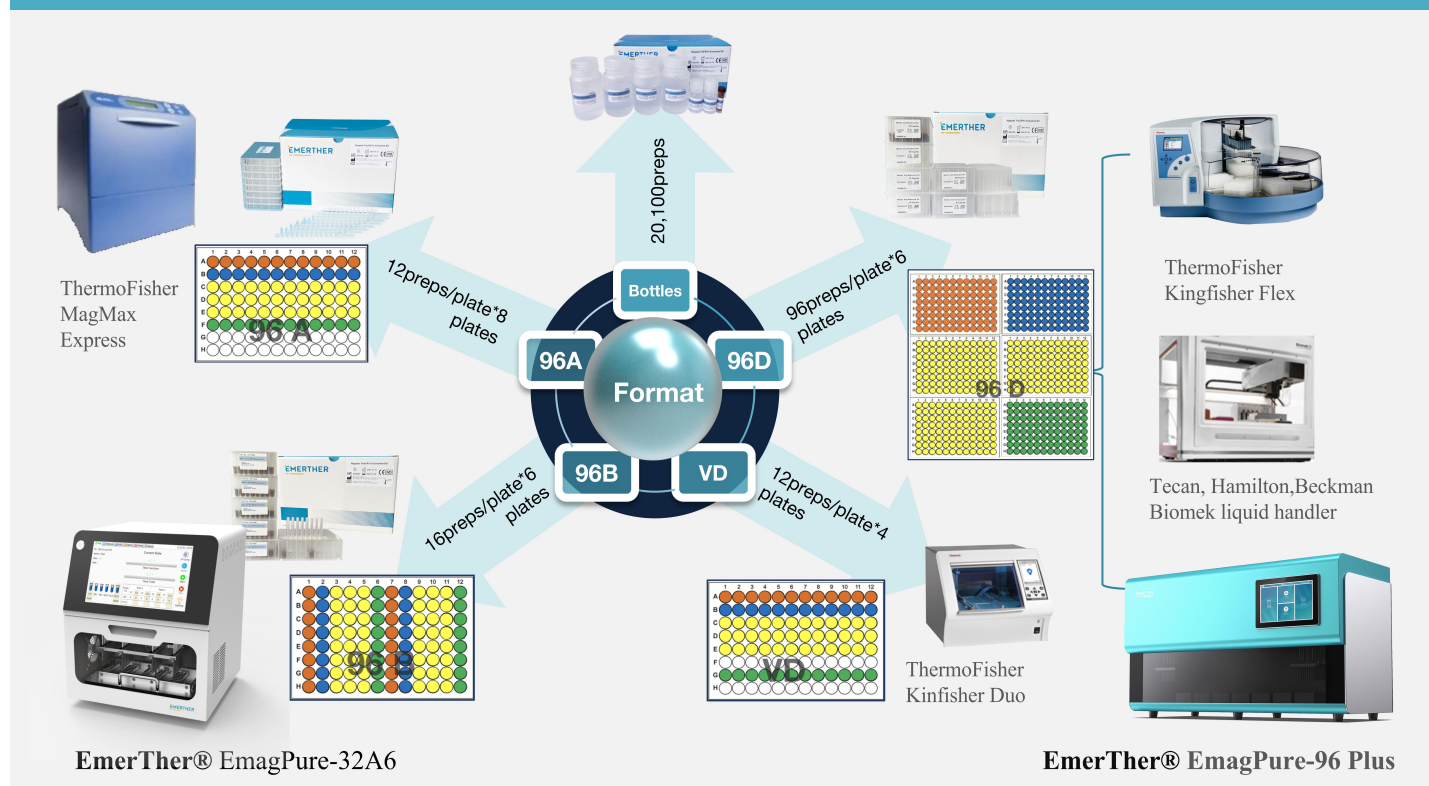
7. Product Pictures



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

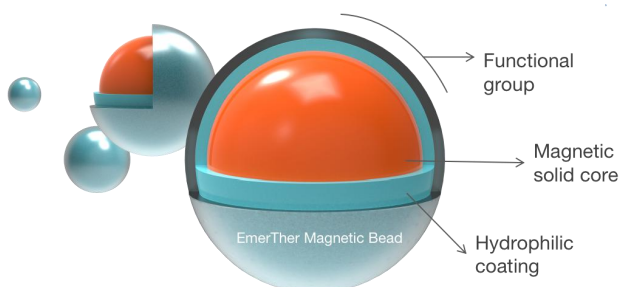
- Nucleic acid extraction
- Protein purification
- Nano-magnetic beads
- Automatic nucleic acid/protein purification instruments

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