Instruction for Use of Nucleic Acid Extraction or Purification Kit

【Product Name】Nucleic Acid Extraction or Purification Kit

【Packing Specifications】 96 rxns/Kit；192rxns/Kit；960 rxns/Kit

【Intended Use】 This kit is intended for the extraction, enrichment or purification of nucleic acid. The treated products can be used for downstream in vitro detection.

【Principle】

This reagent utilizes strong denaturing reagents, detergents etc. to lyse cell membranes and virus membranes, releasing nucleic acid into the solution. In the high salt state, a hydrophobic environment is formed, within which the magnetic beads specifically binds to the nucleic acids, resulting in a stable magnetic bead nucleic acid complex.

Rinsing with washing solution removes impurities such as proteins, lipids and salts. In the low-salt nuclease-free water, the nucleic acid is released from the magnetic beads into the solution, obtaining high-purity and high-quality nucleic acids.

The prepacked reagent is suitable for nucleic acid extraction directly on the nucleic acid extraction instrument.

【Storage】Stored at room temperature.The reagent is valid for 12 months. For the production data and expiration date, please refer to the label.

【Applicable Instruments】Nucleic acid extraction instrument : Kingfisher Flex-96 etc.

【Kit Components】

Components	Packing Specifications（Pre-packaging type：96-Strip Format）			Storage
	96 rxns/Kit	192 rxns/Kit	960 rxns/Kit	
Lysis and Binding Solution V	1 pcs.	2 pcs.	10 pcs.	RT
Wash Solution V1	1 pcs.	2 pcs.	10 pcs.	
Wash Solution MBV2	1 pcs.	2 pcs.	10 pcs.	
Wash Solution V2	1 pcs.	2 pcs.	10 pcs.	
Nuclease-Free Water	1 pcs.	2 pcs.	10 pcs.	
96-Strip Rod	1 pcs.	2 pcs.	10 pcs.	

This product does not include the following reagents and instruments:

- Reaction tubes: 1.5 mL, 2 mL low-adsorption and nuclease-free centrifuge tubes;
- Tip: It is recommended to use a filter tip to prevent contamination of reagent kits and nucleic acid samples.
- Pipette: 2-20 μL / 10-100 μL / 100-1000 μL;

- Nucleic acid extraction instrument

【Precautions】

1. Before tearing the sealing film, lay the Extraction Reagent Plate flat on the table and gently pat the reagent on the well wall to let it drip back into the well. Carefully tear off the sealing film to prevent the liquid from splashing out.

2. During the extraction process, nuclease-free pipette tips, centrifuge tube, mask and gloves should be used to prevent the introduction of exogenous nuclease.

【Sample Requirement】

This product is suitable for the extraction of nucleic acids from serum, plasma, secretions, nasopharyngeal swabs, oropharyngeal swabs, reproductive tract swabs, sputum, and cell virus cultures. Samples should be taken for nucleic acid extraction immediately after collection. If transportation is required, please use a curling or foam box with ice packs for storage.

1.Serum, plasma and cell virus culture samples can be directly extracted for DNA or RNA.

2.Nasopharyngeal swabs, oropharyngeal swabs, genital tract swabs should be thoroughly washed in PBS, physiological saline or virus preservation solution, and then collect the supernatant (or cell pellet) for DNA or RNA extraction.

3.Sputum sample need to be liquefied before DNA or RNA extraction.

【Operation Protocol】

96-Strip Format Operating Procedure

1. Lay the Extraction Reagent Plate flat on the table and gently pat the reagent on the well wall to let it drip back into the well. Carefully tear off the sealing film to prevent the liquid from splashing out.
2. Peel off the sealing film ,Add 200 μ L of sample to the well and mix by pipetting up and down 3 - 5 times.
3. Peal off the sealing films of the Wash Solution V1, Wash Solution V2, and Nuclease-Free water.
4. Wash Solution MBV2 upside down for 5-10 times to mix beads. Peel off the sealing film of Wash Solution MBV2 and gently put it in the 96-Strip Rod. When the program starts, the instrument will transfer the 96-Strip Rod and beads to the Lysis and Binding Solution V plate for lysis and binding.
5. Put the Reagent plates to the corresponding instrument positions according to Table 1.

Plates	Instrument Position	Reagent Name
Wash MBV2	1	Wash Solution MBV2
LysisBinding	2	Lysis and Binding Solution V
Wash V1	3	Wash Solution V1
Wash V2	4	Wash Solution V2
Elution	5	Nuclease-Free Water

Table 1

6. Choose the program "Pre-VirusExtra" and run(operation program according to table 2/3).
7. After the operation, transfer the nucleic acid solution for subsequent experiments. If need long-term storage, please store it at -80℃ ~ -18℃.

Layout			
Plates	Plate Type	Reagent Name	Volume(μL)
Wash MBV2	96 DW tip plate	Wash Solution MBV2	500
LysisBinding	96 DW tip plate	Lysis and Binding Solution V	400
		Sample	200
Wash V1	96 DW tip plate	Wash Solution V1	500
Wash V2	96 DW tip plate	Wash Solution V2	500
Elution	96 DW tip plate	Nuclease-Free Water	50

Table 2

Protocol									
Tip1	Pick-Up:Wash MBV2								
	Plate	Mix time	Speed	Heating during Mixing	Block temperature[℃]	Collect beads, count	Collect time	Dry time	Tip position
Mix1	Wash MBV2	00:00:15	Half Mix	/	/	3	15	/	/
Mix2	LysisBinding	00:05:00	Half Mix	√	56	3	5	/	/
Mix3	Wash V1	00:00:30	Half Mix	/	/	3	5	/	/
Mix4	Wash V2	00:00:30	Half Mix	/	/	3	5	/	/
Dry1	Wash V2	/	/	/	/	/	/	00:01:00	Above well
Mix5	Elution	00:03:00	Fast	√	56	5	15	/	/
Leave	Wash MBV2								

Table 3

【Limitations】

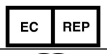
Inappropriate sample collection, transport and processing, and low virus nucleic acid concentrations in the sample may affect

the extraction.

【Product Performance】

The Coefficient of Variation between tests is less than 10%.
Recovery rate equal or greater than 50%.

【Explanation of Marks】

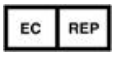
Diagram and symbol used on kit label	Remarks
	Manufacturer
	Authorized Representative in the European Community
	Consult Instructions for Use
	In vitro diagnosis reagent
	Contains sufficient for <n> tests
	Date Of Manufacture
	Use By
	Batch Code
	Storage temperature
	Keep dry
	Keep away from sunlight
	Fragile, handle with care
	Do Not Reuse
	Biological risks
	Recoverable PAP material
	Recoverable PP material
	Recycled recyclable
	CE Mark

【Manufacturing Date and Expiration Date】

See details on packaging label.

【Basic Information】

GUANGDONG ARDENT BIOMED Co.,Ltd.
4th floor of C1 Building,No.11Kaiyuan Road Science City
High-tech Industrial Development District,Guangzhou City
Guangdong 510530,China
Tel: 86-020-82207223
Web site:www.ardentbiomed.com.cn



Caretechion GmbH
Niederrheinstr 71,40474 Duesseldorf,Germany
Tel: +49 211 300 366 18
Email: jian.wang@caretechion.de

【User Manual Information】

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【References】

[1] Lo Y M, Tein M S, Lau T K, et al. Quantitative Analysis of Fetal DNA in Maternal Plasma and Serum: Implications for Noninvasive Prenatal Diagnosis[J]. American Journal of Human Genetics, 1998, 62(4): 768-775.

[2] Anker P, Lefort F, Vasioukhin V, et al. K-ras mutations are found in DNA extracted from the plasma of patients with colorectal cancer[J]. Gastroenterology, 1997, 112(4): 1114-1120.

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