















## Glossary of Symbols

Symbol	Meaning	Symbol	Meaning
	<i>in vitro</i> diagnostic medical device		Temperature limit
	Manufacturer		Use-by date
	Date of Manufacture		Do not re-use
	Batch code		Consult instructions for use
	Authorized representative in the European Community / European Union		CE Symbol
	Caution		Unique device identifier
	Catalogue number		Do not use if package is damaged and consult instructions for use

## Magbead Viral DNA /RNA Kit Instructions for Use

### Cat. No.

Reference	Specification	Compatible Equipment
CWX104S	96 tests/box	KingFisher Flex (Thermo Fiasher), Auto-Pure 96 (AllSheng), Extracta 96 (Loccus), Purifier HT, e CWE960

### Storage Condition

The manufacturing and expiry dates are printed on the label. Store at room temperature 15°C to 35°C, including the proteinase K reagent included in the kit.

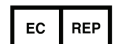
### Components of the Kit

Name	96 tests/box	Main contents
Sample Plate	1 plate (96 wells)	Guanidine Hydrochloride, NaCl, SDS, Tris-HCl, Isopropanol
Washing Plate 1	1 plate (96 wells)	Guanidine Hydrochloride, NaCl, Tris-HCl, Absolute Ethanol
Washing Plate 2	1 plate (96 wells)	NaCl, Tris-HCl, Absolute ethanol, Magbeads
Elution Plate	1 plate (96 wells)	Water without RNase
Disposable plastic TIP for magnetic rods	1 box (96 rods)	Tips 96
Support for Tip 96	1 plate (96 wells)	
Proteinase K	3 vials with 1,25 mL	Proteinase K

### Basic Information



Jiangsu CoWin Biotech Co., Ltd.  
No.18, Zelan Road, China Medical City, Taizhou, Jiangsu, China  
Manufacturing address:  
No.18, Zelan Road, China Medical City, Taizhou, Jiangsu, China  
Post code: 225300  
Tel: +86-523-86201352 Fax: +86-523-86816890  
Website: www.cwbiosciences.com  
After-sales service Tel: +86-10-56953015  
E-mail: info@cwbio.com



CMC Medical Devices & Drugs S.L.  
Address: C/Horacio Lengo Nº 18 CP 29006, Málaga-Spain  
Tel: +34 951 214054 Email: info@cmcmmedicaldevices.com

## Intended Use

The kit is designed for the isolation, enrichment and purification of DNA/RNA nucleic acids by silicon dioxide-coated magnetic beads in a wide range of clinical and etiological samples. The processed products can be used for in vitro clinical diagnostics.

## Introduction

The Magbead DNA/RNA Kit provides a simple, fast and efficient method for extracting DNA/RNA. The unique buffer system allows the nucleic acid in the lysate to be efficiently and specifically bound to the magbeads. The nucleic acid obtained has high purity, stable quality and is free of proteins, nuclease and other contaminants and inhibitors. It can be applied to various conventional operations, including PCR, real-time PCR, RT-PCR, qPCR, and other experiments.

## Samples

- Whole Blood, Serum, Plasma;
- Oropharyngeal and Nasopharyngeal Swab; Bronchoalveolar Lavage/Aspirate, Saliva, Sputum;
- Liquid cytology;
- Urethral, vaginal, cervical and rectal swabs;
- Urine;
- Cerebrospinal fluid (CSF), Body punctures and other cell-free body fluids;
- Bacterial, Viral, Fungal, Parasitic and Spore Samples and Cultures;
- Viral, Bacterial and Parasitic Transport Media and Suspension in PBS;
- Stool;

## Nucleic acid extraction programs and protocols

DNA/RNA can be extracted from 1-96 samples all at once, after combining the product with a 96-channel automatic nucleic acid extractor, with an estimated extraction time of up to 30 minutes.

## Warnings and Precautions

1. For *in vitro* diagnostic use only (IVD).
2. This product is for professional use only.
3. Check the packaging before use. If it is damaged, it is strictly forbidden to use it.
4. Do not drink, touch or remove the reagent from the bottle.
5. Do not reuse.
6. Any serious incident involving the product must be reported to the manufacturer and the competent authority.
7. This kit is intended for use with verified equipment, such as the applicable equipment mentioned in the instructions for use. If you want to use it with other equipment, you will need to have it checked.



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- |      |                                |
|------|--------------------------------|
| H302 | Harmful if swallowed.          |
| H315 | Causes skin irritation.        |
| H319 | Causes serious eye irritation. |

- 2.3 Without removing the sealant, quickly centrifuge the plates so that the entire volume of reagents is concentrated at the bottom of the wells;
- 2.4 Carefully remove the sealant from the Sample Plate;
- 2.5 Add 200–500 µL of sample (let the samples equilibrate at room temperature) and 30 µL of Proteinase K to the wells of the Sample Plate preloaded with reagents; Change the tip with each pipetted sample;
- 2.6 Store the Sample Plate in a safe place until it is loaded into the device;
- 2.7 Carefully remove the sealant from Wash Plate 1, Wash Plate 2 and Elution Plate. For Tips 96 and Tips 96 Support Plate, remove the protective plastic;
- 2.8 Open the door of the King Fisher Flex;
- 2.9 Insert the disposable plastic Tips in Position 1, the Sample Plate in Position 2, Wash Plate 1 in Position 3, Wash Plate 2 in Position 4 and Elution Plate in Position 8;
- 2.10 In the equipment software, in the "Layout" icon: enter the name of the plate/reagent; plate type and reagent volume.
- 2.11 Check the race schedule on the "Protocol" icon:
  - 1) Enter the name of the kit;
  - 2) Tips: 96DW tip comb
 For the steps Collect beads / Lysis and bonding / Wash 1/ Wash 2/ Drying / Elution / Disposal – check the program according to item above;
- 2.12 Save the program and start the extraction protocol;
- 2.13 At the end of the extraction protocol, carefully remove the Elution Plate (position 8) from the automatic extractor;
- 2.14 In an aseptic cabinet, using a micropipette, transfer all the contents of the eluate containing the purified nucleic acids to new microtubes or a new plate;
- 2.15 Extracted samples are ready for immediate use and/or storage at –20°C;
- 2.16 Remove all other plates from the equipment and dispose of them in an appropriate place. Reuse is not possible if you do not use the 96 wells;
- 2.17 Decontaminate the equipment with UV light and 70% ethanol.

### 1. Loccus Extracta 96 equipment programming

Step No.	Position	Name	Waiting time (min)	Mixing time (min)	Range	Magnetic time (sec) <sup>1)</sup>	Veloc.	Volume (µL)	Temperature (°C)
1	7		Collection Tips 96						
2	3	Collection	0	0	80	60		500	0
3	1	Lise	0	10	80	90	8	700	0
4	2	Washing 1	0	2	80	60	8	500	0
5	3	Washing 2	0	2	80	60	8	500	0
6	3	Drying	2	0	80	0		500	0
7	8	Elution <sup>2)</sup>	0	5	80	60	8	100	56
8	7		Discard Tips 96						

**Note:** 1) To access the Magnetic Time programming (sec), press >> in the original protocol, after the temperature stage. When opening, ALWAYS add the programming instruction in 2 TIME;

2) Elution protocol for a minimum value of 50 µL and a maximum value of 100 µL.

### DNA/RNA Extraction Protocol – Loccus Extracta 96

- 1.1 Turn on the extraction equipment, decontaminate with UV light and 70% alcohol;
- 1.2 Remove from kit packaging:
  - 1x Sample Plate
  - 1x Washing Plate 1
  - 1x Washing Plate 2
  - 1x Elution Plate
  - 1x Tip 96 – TIP disposable plastic for magnetic rods
  - 1x Tips 96 Support Plate
- 1.3 Without removing the sealant, quickly centrifuge the plates so that the entire volume of reagents is concentrated at the bottom of the wells;
- 1.4 Carefully remove the sealant from the Sample Plate;
- 1.5 Add 200–500 µL of sample (let the samples equilibrate at room temperature) and 30 µL of Proteinase K to the wells of the Sample Plate preloaded with reagents; Change the tip with each pipetted sample;
- 1.6 Store the Sample Plate in a safe place until it is loaded into the device;
- 1.7 Carefully remove the sealant from Wash Plate 1, Wash Plate 2 and Elution Plate. For Tips 96 and Tips 96 Support Plate, remove the protective plastic;
- 1.8 Open the door of the Loccus Extracta 96 device;

- 1.9 Insert Sample Plate in Position 1, Wash Plate 1 in Position 2, Wash Plate 2 in Position 3 and Elution Plate in Position 8;
- 1.10 In position 7, insert the Tips Support Plate 96 containing the disposable plastic TIPS for inserted magnetic rods;
- 1.11 Before starting the extraction protocol, check that the distribution of the plates is correct, as shown in the figure below:

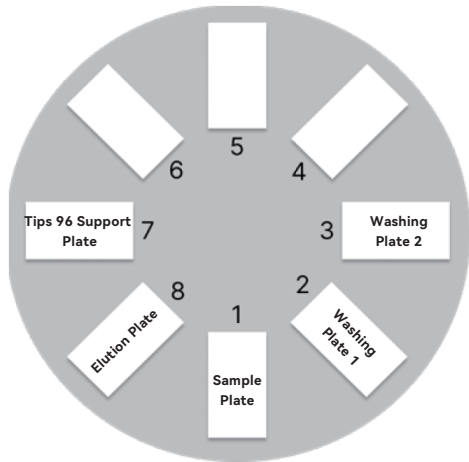


Figure: Plate distribution Loccus Extracta 96 equipment

- 1.12 Start the extraction protocol;
- 1.13 At the end of the extraction protocol using the CWX104S program, carefully remove the Elution Plate (position 8) from the automatic extractor;
- 1.14 In an aseptic cabinet, using a micropipette, transfer all the contents of the eluate containing the purified nucleic acids to new microtubes or a new plate;
- 1.15 Extracted samples are ready for immediate use and/or storage -20°C;
- 1.16 Remove all other plates from the equipment and dispose of them in an appropriate place. Reuse is not possible if you do not use the 96 wells;
- 1.17 Decontaminate the equipment with UV light and 70% ethanol;

2. King Fisher Flex equipment programming

Step No.	Position	REAGENT	GENERAL: Collect Beads		GENERAL: Release beads	MIXING/HEATING PARAMETROS				END STOP	
			Collect count	Collect time		Mix time	Loop count	Block temp (°C)	Tip position when paused	Collect beads	Release
1	4	Magnetic Beads	4	30	-	-	-	-	-	-	-
2	2	Lysis and bonding	-	-	5seg / Speed Fast	10 min - speed pausado	1	10°C - Preheat	Above well/ tube surface	4	-
3	3	Buffer Washing 1	-	-	5seg / Speed Média	2 min - speed médio	1	37°C	-	2	-
4	4	Buffer Washing 2	-	-	5seg / Speed Fast	2 min - speed médio	1	37°C	-	2	-
5	4	Drying	3 min - Tip position: Outside well/tube								
6	8	Elution	-	-	10 seg - Speed Fast	6 min - speed médio	1	56°C heating during Mixing e Pre-heat	-	4	-
7	3	Disposal	-	-	-	-	-	-	-	-	30 seg - Fast

Note: Elution protocol for a minimum value of 50 µL and a maximum value of 100 µL.

DNA/RNA Extraction Protocol – King Fisher Flex

- 2.1 Turn on the extraction equipment, decontaminate with UV light and 70% alcohol;
- 2.2 Remove from kit packaging:
  - 1x Sample Plate
  - 1x Washing Plate 1
  - 1x Washing Plate 2
  - 1x Elution Plate
  - 1x Tip 96 – TIP disposable plastic for magnetic rods
  - 1x Tips 96 Support Plate