MgPure Viral RNA Purification Kit

Prefilled reagents for Allsheng Auto-Pure 96

MR6532.A96 V210318

Contents

Safety Information

Strictly follow CDC or Depart of Health guidance for handling infectious samples. Wear appropriate personal protective equipment (e.g. gowns, gloves, eye protection) when working with clinical specimens. Specimen processing should be performed in a certified biological safety cabinet accordingly following biosafety guidelines for the specific virus. Buffer MYE and Buffer RB contains chaotropic salts, which may form reactive compounds when combines with bleach. Do not add bleach or acidic solutions directly to the preparation waste, wear gloves and protective eyewear when handling.

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Introduction

The prefilled format of Viral RNA extraction kit provides an easy and reliable method for simultaneously extracting total viral RNA from 96 samples in 25 minutes. The acceptable samples are nasopharyngeal or oropharyngeal aspirates or washes, nasopharyngeal or oropharyngeal swabs, broncheoalveolar lavage, tracheal aspirates, and sputum. This procedure has been tested for isolating nucleic acids from COVID-19, Hepatitis A, Hepatitis C and HIV. The isolated RNA can be used for PCR, qRT-PCR and other downstream applications. This protocol is validated on Allsheng auto pure 96 and KingFisher plex and can be adapted to major automation platforms such as Biomek FX, Biomek 3000, Hamilton Microlab STAR, Hamilton MagEx STARlet and many others.

Kit Contents

Catalog#	MR6532.A96-00	MR6532A96-01	MR6532.A96-01B	MR6532A96-02
Preps	1 x 96	4 x 96	10 x 96	20 x 96
L Solution	400 µL	1.6 mL	4 mL	8 mL
Proteinase K	1.1 mL	5 mL	11 mL	22 mL
MgPure Beads	96x200 µL	4x96x200 µL	10x96x200 µL	20x96x200 µL
Buffer MYE	96x250 µL	4x96x250 µL	10x96x250 µL	20x96x250 µL
Buffer RB	96x500 µL	4x96x500 µL	10x96x500 µL	20x96x500 µL
RNA Wash Buffer*	96x100 µL	4x96x100 µL	10x96x100 µL	20x96x100 µL
DEPC-Treated ddH_2O	96x50 µL	4x96x50 µL	10x96x50 µL	20x96x50 µL
Magnetic rod comb	1	4	10	20
User Manual	1	1	1	1

*R NA Wash Buffer: Add 400 µL 100% ethanol to each well before use.

Storage and Stability

Store Mgpure beads plates at 4-8°C and all other components at room temperature (15-25°C). All kit components are guaranteed for 1 year from the date of purchasing.
For long term: store proteinase K and L solution at -20°C.

Before Starting

1. Allsheng Auto Pure 96: Turn on ultraviolet disinfection for 20 min before use.
2. Preparation of RNA Wash Buffer by adding 400 µL per well before use.
3. Preparation of Buffer MYE/L solution/Proteinase K/Isopropanol mix: Calculate the number of samples to be processed and make a master mix of 4 µL L Solution, 10 µL proteinase K and 450 µL isopropanol. Add 464 µL of the master mix to each well of Buffer MYE plate.
4. Add 250 µL sample to each well of Buffer MYE/L solution/proteinase K/isopropanol mix.

   (Note: The final isopropanol concentration > 40%)

Operation protocol

1. Take pre-loaded 96-well plates and add samples and reagents to the plate according to table 1 below.

   Note: The total volume of each well must not exceed 1000 µL, or it may overflow.

Table 1. 96-well plate setting

96-well plate	Sample / reagent	Vol. (µL)	Plate description	Note
Binding	Sample	250	Add by user	Ensure the total volume is ≤1000µL
	Buffer MYE	250	Added	
	L Solution, proteinase K and isopropanol	464	Add by user	
Beads	MgPure Beads	10	Added	
	storage solution (or ddH_2O)	190		
Wash 1	Buffer RB	500	Added	
Wash 2	RNA Wash Buffer	100	Add 400 µL 100% ethanol to each well by user	
Elution	DEPC-Treated ddH_2O	70	Added	Elution volume can be adjusted according to specific requirements

2. Start the instrument, place a new magnetic rod comb in the instrument, and put 96-well plates into the corresponding position in the instrument.
3. Use the installed program (table 2).
4. Collect products after the program is completed. Take out 96-well plate, and pipette the purified RNA in the Elution plate into a sterile 96 plate, proceed to PCR or store at -80℃.

Table 2. Extraction procedure

Step	Name	Plate position	Mix time min	Mix range (%)	Wait time min	Vol (μL)	Mix speed 1-10	Tm (℃)	Magnetize section (0-5)	cycle index (1-10)	Magnetize speed (1-10)	First magnetize time (s)	Second magnetize time (s)
1	Load	2	-	-	-	-	-	-	-	-	-	-	-
2	Binding 1	2	10	80	0	900	2	OFF	0	1	-	-	-
3	Beads	3	1	80	0	100	1	OFF	2	1	1	5	5
4	Binding 2	2	5	80	0	900	8	OFF	2	2	1	10	10
5	Wash 1	4	1	80	0	600	8	OFF	2	1	1	10	10
6	Wash 2	5	1	80	2	600	8	OFF	2	1	1	5	5
7	Elution	6	5	80	0	100	5	OFF	1	3	1	30	-
8	Unload	4	-	-	-	-	-	-	-	-	-	-	-

Limited Use and Warranty

This product is warranted to perform as described in its labeling and in BIOMIGA's literature when used in accordance with instructions. No other warranties of any kind, express or implied, including, without limitation, implied warranties of merchantability or fitness for a particular purpose, are provided by BIOMIGA. BIOMIGA's sole obligation and purchaser's exclusive remedy for breach of this warranty shall be, at the option of BIOMIGA, to replace the products, BIOMIGA shall have no liability for any direct, indirect, consequential, or incidental damage arising out of the use, the results of use, or the inability to use it product.

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