MgPure Universal Pathogen DNA/RNA Purification Kit

Prefilled reagents for Kingfisher Flex/IsoPure 96/Autopure 96

MR6532.CX.A96 V230722

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 MgPure universal pathogen DNA/RNA extraction plus kit provides an easy and reliable method for isolating total pathogen DNA/RNA from plasma, serum, nasopharyngeal or oropharyngeal aspirates or washes, nasopharyngeal or oropharyngeal swabs, broncheoalveolar lavage, tracheal aspirates, genital swabs, rectal swabs, and urine. This procedure has been tested for isolating nucleic acids from COVID-19, Hepatitis A, Hepatitis C, HIV, Neisseria gonorrhoeae, and Trichomonas vaginalis. The isolated DNA/RNA can be used for PCR, qRT-PCR and other downstream applications. This prefilled protocol has been fully validated on Kingfisher flex, Allsheng autopure 96, and Benchmark IsoPure 96. It can be easily adapted to major automation platforms such as Kingfisher, Biomek, Hamilton, and any other open platforms.

Kit Contents

Catalog#	MR6532.CX.A96-00	MR6532.CX.A96-01	MR6532.CX.A96-02
Preps	1 x 96	4 x 96	20 x 96
MgPure Beads	96x200 µL	4x96x200 µL	20x96x200 µL
Buffer MYE	96x600 µL	4x96x600 µL	20x96x600 µL
RNA Wash Buffer	96x500 µL	4x96x500 µL	20x96x500 µL
DEPC-Treated ddH_2O	96x50 µL	4x96x50 µL	20x96x50 µL
Lytic enzyme mix	2.5 mL	10 mL	50 mL
Magnetic rod comb	1	4	20
User Manual	1	1	1

Storage and Stability

Store lytic enzyme mix at -20◦C. Store all other components at room temperature (15-25℃). All kit components are guaranteed for 1 year from the date of purchasing.

Before Starting

Allsheng Auto Pure 96: Turn on ultraviolet disinfection for 20 min before use.

Pathogen DNA/RNA extraction from swabs

Optional: If fungal targets are to be detected

- Mix well and transfer 300 µL of sample to a clean vial, add 20 µL of Lytic enzyme.
- Vortex and incubate at room temperature for 10 minutes. Proceed to step 1.

1. Peel off the sealing film of Buffer MYE plate, add 250 µL sample to each well of Buffer MYE plate.
2. Peal off the sealing films of MgPure Beads Plate, RNA Wash Plate, and DEPC H_2O Plate.
3. Put a 96 well tip comb to the MYE Plate. Upload the plates to the corresponding position in the automation platform.
4. Start the program. Collect the purified DNA/RNA after the program is completed. Take out the DEPC H_2O Plate that contains the purified DNA/RNA, proceed to PCR or store at -80℃.

Pathogen DNA/RNA extraction from urine

5. Mix the sample well by shaking or swirling.
6. Transfer 1.5 mL of urine to a 2 mL tube.
7. Optional: If viral targets are to be detected, add 500 µL 100% ethanol. Mix well.
8. Centrifuge the sample at 10,000 xg for 5 minutes.
9. Carefully remove the and discard the supernatant without disturbing the pellet.
10. Optional: repeat step 7 through step 10 to enrich pathogens.
11. Add 250 µL PBS and 20 µL PBS of lytic enzyme. Mix well by vortexing for 10 seconds.
12. Incubate at room temperature for 10 min.
13. Proceed to step 1.

Table 1. 96-well plate setting

96-well plate	Sample / reagent	Vol. (μL)	Plate description	Note
Lysis/ Binding	Sample	250	Add by user	Ensure the total volume is ≤1000μL
	Buffer MYE	600	Added	
Beads	MgPure Beads	10	Added	
	Storage solution	190		
Wash	RNA Wash	500	Added	
Elution	DEPC-Treated ddH_2O	50	Added	Elution volume can be adjusted according to specific requirements

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	Lysis	2	10	80	0	850	2	OFF	0	1	-	-	-
3	Beads	3	1	80	0	200	1	OFF	2	1	1	5	5
4	Binding	2	5	80	0	850	8	OFF	2	2	1	10	10
6	Wash	5	1	80	2	500	8	OFF	2	1	1	5	5
7	Elution	6	5	80	0	50	5	OFF	1	3	1	30	-
8	Unload	5	-	-	-	-	-	-	-	-	-	-	-

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.

For technical support or learn more product information, please contact us at 858-603-3219 or visit our website at www.biomiga.com