A&A BIOTECHNOLOGY
innovating life science

Manual

MagnifiQ™ Pathogen reagent and consumables kit

A set of reagents and all necessary consumables for filling plates for the automated, magnetic isolation of DNA and RNA of pathogenic microorganisms.

catalog #	size	compatible devices *
606D-16U-64	64 isolations	Auto-Pure 32A
606D-16V-64	64 isolations	Auto-Pure Mini
606D-16U-256	256 isolations	Auto-Pure 32A
606D-16V-256	256 isolations	Auto-Pure Mini
606D-96V-960	960 isolations	Auto-Pure 96

*** Compatible devices**
The kit has been tested with ThermoFisher Scientific KingFisher Flex and specific Allsheng brand isolation devices. This does not preclude it from working with other devices. If your device is not listed, please contact us at info@aabiot.com.

For research use only.

Guarantee
A&A Biotechnology provides a guarantee on this product.
The company does not guarantee the correct performance of this kit in the event of:

- not adhering to the supplied protocol
- use of not recommended equipment or materials
- use of other reagents than recommended or which are not a component of the product
- use of expired or improperly stored product or its components

Table of Contents

Advantages

- Automated, fast isolation.
- Universal extraction of both DNA and RNA Automated, fast isolation.

Specification

protocol time	~30 min
sample type	swab sample
sample size	up to 400 µl
elution volume	50 - 100 µl
elution solution	Tris buffer
binding capacity	30 µg DNA and RNA
downstream applications	qPCR, RT-qPCR, sequencing

Description

MagnifiQ™ Pathogen reagents and consumables kit is designed for RNA and DNA isolation from viruses and Gram(-) bacteria. The kit contains reagents and all necessary consumables for self-filling plates. The isolated material is perfect for further analyzes and tests by qPCR and RT-PCR methods and for sequencing.

The **MagnifiQ™** series products are based on the automated isolation of nucleic acids with use of magnetic beads. This method significantly shortens working time and reduces risk of mistake in comparison to manual methods.

Contents

Reagents

	64 isolations		256 isolations		960 isolations		
składnik	**quantity**	**cat #**	**quantity**	**cat #**	**quantity**	**cat #**	**storage**
BBG binding buffer	40 ml	K-BBG-40	155 ml	K-BBG-155	580 ml	K-BBG-580	15–25 °C
A1WI wash solution	45 ml	K-A1WI-45	170 ml	K-A1WI-170	640 ml	K-A1WI-640	15–25 °C
MQBB magnetic beads	45 ml	K-MQBB15-45	170 ml	K-MQBB15-170	640 ml	K-MQBB15-640	15–25 °C
Tris buffer	8 ml	K-TRIS-8	30 ml	K-TRIS-30	110 ml	K-TRIS-110	15–25 °C
Proteinase K	1,5 ml	K-PRK-15A	6 ml	K-PRK-6	22 ml	K-PRK-22	4–8 °C*

* Proteinase K can be stored at 15-25 °C for up to 12 months.

Plastic consumables

	606D-16U-64		606D-16U-256		
component	**quantity**	**cat #**	**quantity**	**cat #**	**storage**
2.2 ml plate	4 pcs	K-P96U22	16 pcs	K-P96U22	15–25 °C
tip comb 8	4 x 2 pcs	K-C8U-2	16 x 2 pcs	K-C8U-2	15–25 °C
protective film	4 pcs	K-MQF-4	16 pcs	K-MQF-16	15–25 °C

	606D-16V-64		606D-16V-256		
component	**quantity**	**cat #**	**quantity**	**cat #**	**storage**
2.2 ml plate	4 pcs	K-P96V22	16 pcs	K-P96V22	15–25 °C
tip comb 8	4 x 2 pcs	K-C8U-2	16 x 2 pcs	K-C8U-2	15–25 °C
protective film	4 pcs	K-MQF-4	16 pcs	K-MQF-16	15–25 °C

	604D-96V-960		
component	**quantity**	**cat #**	**storage**
CP - comb plate	1 pc	K-P96V22C	15–25 °C
2.2 ml plate	50 pcs	K-P96V22	15–25 °C
0.5 ml plate	2 x 5 pcs	K-P96V05-5	15–25 °C
tip comb 96	5 x 2 pcs	K-C96V-2	15–25 °C
protective film	10 pcs	K-MQF-10	15–25 °C

Additional equipment and reagents

Necessary

- automated pipette
- pipette tips
- 80% ethanol (1.2 ml per sample)

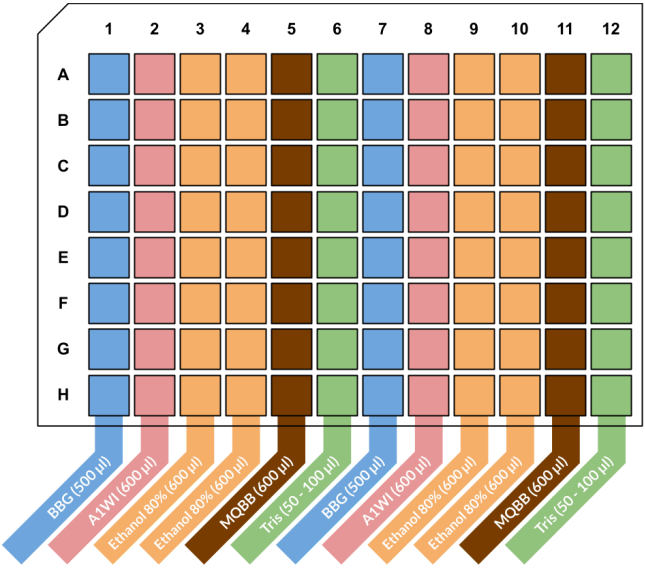
Optional

- 2 ml sterile Eppendorf tubes (sample lysis)
- Sterile water, Tris buffer, PBS buffer
- vortex

Plate preparation

16 samples per plate format

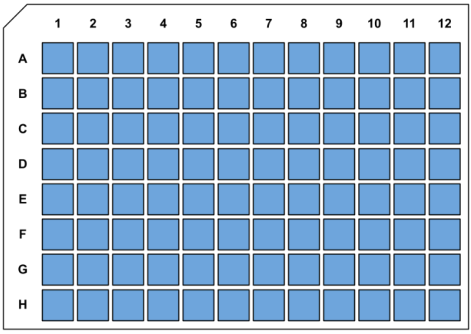
Distribute the buffers into a 2.2 ml plate as shown in the diagram below:



96 samples per plate format

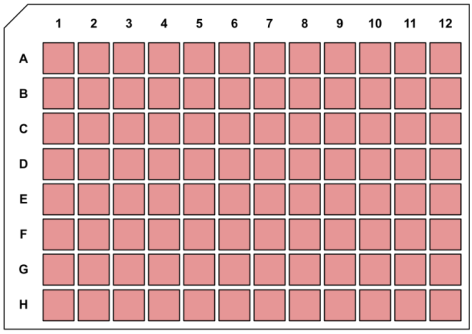
Distribute the buffers into a plates and mark them as shown in the diagram below:

"SP" (2.2 ml plate)



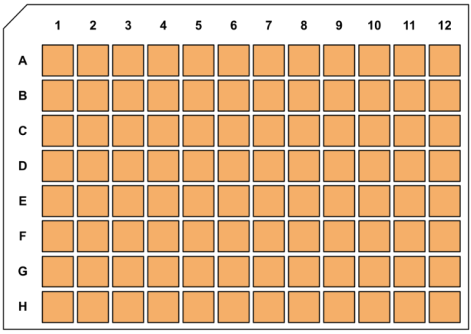
BBG (500 µl)

"WP 1" (2.2 ml plate)



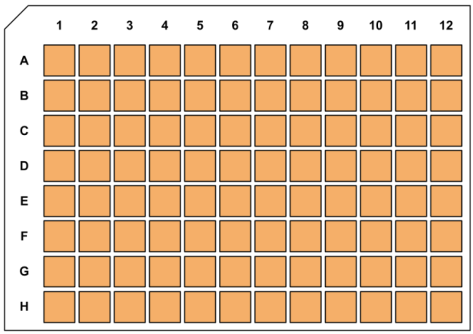
A1WI (600 µl)

"WP 2-3" (2.2 ml plate)



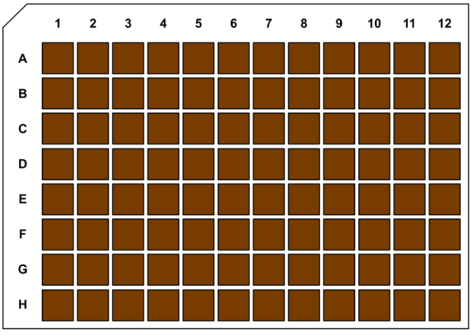
Ethanol 80% (600 µl)

"WP 2-3" (2.2 ml plate)



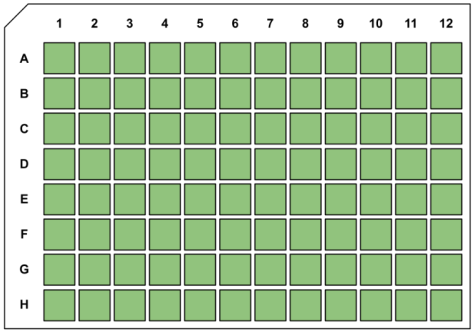
Ethanol 80% (600 µl)

"BP" (2.2 ml plate)



MQBB (600 µl)

"EP" (0.5 ml plate)



Tris (50 - 100 µl)

Material preparation

Swabs with transport medium

No additional material preparation is required.

Swabs without transport medium

1. Break or cut off part of the swab with the collected sample and place it in a 2 ml Eppendorf tube (not included).

   Note. The portion of the swab with the collected sample should fit completely into the tube.

2. Add **500 µl** of sterile water, Tris buffer or PBS buffer.

   Note. Part of the swab with the sample should be completely immersed in the buffer.

3. Vortex for **20 s**..

4. Follow point 1. of the protocol.

Protocol

16 samples per plate format

1. Add **200** - **400 µl** of samples to the wells in columns **1** and **7** of **2.2 ml plate**.

   Optional. Add 20 µl of Proteinase K to the wells in columns 1 and 7 of 2.2 ml plate.

2. Place one or two **2.2 ml plates** in the extraction device..

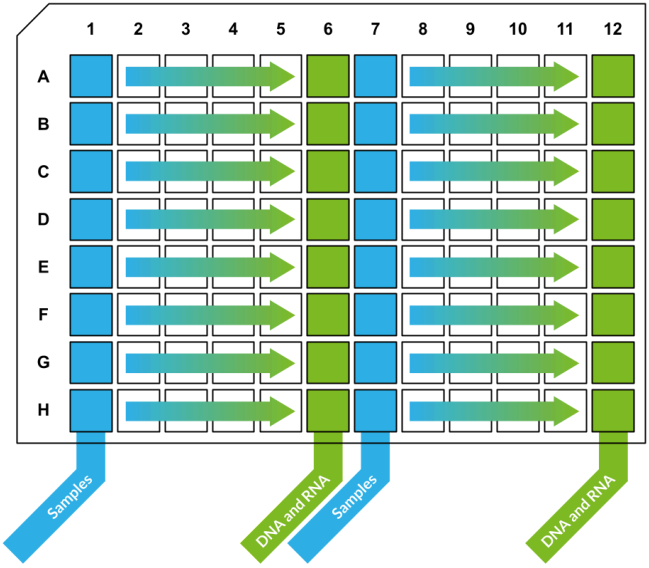
3. Place the appropriate number of **tip combs 8** in the extraction device.

4. Run the program according to the table below:

Step	Well	Name	Mix Time (min)	Magnet (s)	Wait Time (min)	Volume (µl)	Mix Speed (1-10)	Temp. (°C)
1	1	LYSIS	5.0	0	0.0	900	4	50
2	5	BEADS	0.5	30	0.0	600	5	OFF
3	1	BIND	5.0	60	0.0	900	6	OFF
4	2	WASH1	2.0	30	0.0	600	6	OFF
5	3	WASH2	1.0	30	0.0	600	6	OFF
6	4	WASH3	1.0	30	5.0	600	6	OFF
7	6	ELUTION	6.0	60	0.0	100	8	65
8	3	DROP	1.0	0	0.0	600	5	OFF

5. After the program is over, remove the 2.2 ml plate from the extraction device and seal it with a **protective film.** The extracted DNA and RNA is located in columns **6** and **12**.

Note. For longer storage of extracted material, transfer it from the plate to appropriate tubes and store at 4 °C for DNA or -70 °C for RNA.



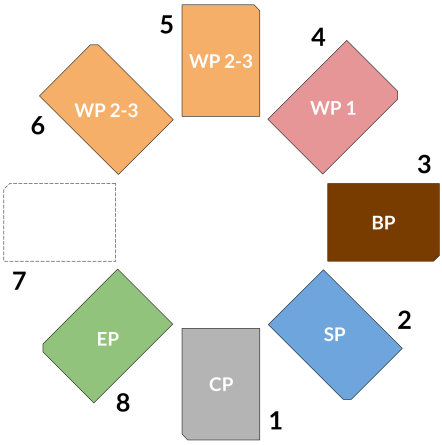
96 samples per plate format

1. Add **200-400 µl** of samples to the wells of the **SP** plate.

   Optional. Add 20 µl of Proteinase K to the wells of the SP plate.

2. Place the t**ip combs 96** into the comb plate.

3. Place the plates on the working table of the extraction device according to the scheme:



5. Run the program according to the table below:

Step	Plate	Name	Mix Time (min)	Magnet (sec)	Wait Time (min)	Volume (µl)	Mix Speed (1-10)	Temp. (°C)
1	2	LYSIS	5,0	0	0,0	900	4	50
2	3	BEADS	0,5	30	0,0	600	5	OFF
3	2	BIND	5,0	60	0,0	900	4	OFF
4	4	WASH1	2,0	30	0,0	600	6	OFF
5	5	WASH2	1,0	30	0,0	600	6	OFF
6	6	WASH3	1,0	30	5,0	600	6	OFF
7	8	ELUTION	6,0	60	0,0	100	8	65
8	4	DROP	1,0	0	0,0	600	5	OFF

6. After the program is over, remove the **EP** plate from the extraction device and seal it with a **protective film.**

   Note. For longer storage of extracted material, transfer it from the plate to appropriate tubes and store at 4 °C for DNA or -70 °C for RNA.

7. Discard remaining plates except the **CP** plate, which can be reused.

Safety information

DANGER

Proteinase K

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
P261 Avoid breathing dust.
P305+P351+P338 If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P342+P311 If experiencing respiratory symptoms call a Poison Center or doctor/physician

DANGER

BBG binding buffer

H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
H314 Causes severe skin burns and eye damage.
H412 Harmful to aquatic life with long lasting effects.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P312+P330 If swallowed: Call a poison center/doctor/... if you feel unwell.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

DANGER

A1WI wash solution

H225 Highly flammable liquid and vapor.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/fume/gas/mist/vapours/ spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P312+P330 If swallowed: Call a poison center/doctor/... if you feel unwell.
P305+P351+P338 If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/ attention.

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