A&A BIOTECHNOLOGY
innovating life science

Manual

MagnifiQ™ 16 Plant DNA instant kit

Kit for automated, magnetic isolation of genomic DNA from plant tissue in the 16 samples per plate format. Contains ready-to-use, reagent-filled plates and all necessary consumables.

catalog #	size	compatible devices *
650A-16U-64	64 isolations	Auto-Pure 32A
650A-16V-64	64 isolations	Auto-Pure Mini Auto-Pure S32
650A-16U-256	256 isolations	Auto-Pure 32A
650A-16V-256	256 isolations	Auto-Pure Mini Auto-Pure S32

*** Compatible devices**
The kit has been tested with 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

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Advantages

- MagnifiQ™ 16 Plant DNA instant kit does not require initial preparation of buffers. Just add prepared samples to the plate and get extracted material within approximately half an hour.
- It enables isolation of different samples with universal kit and automated extraction programme.

Specification

protocol time	~31 min
sample size	• dry, powdered plant tissue: 20 - 50 mg • fresh or frozen, powdered plant tissue: 40 - 80 mg • dry, unpowdered plant tissue: 20 - 50 mg • fresh or frozen, unpowdered plant tissue: 40 - 80 mg
elution volume	100 µl
elution solution	Tris buffer
binding capacity	up to 60 ug
downstream applications	sequencing, qPCR, RT-PCR

Description

MagnifiQ™ 16 Plant DNA instant kit is designed for genomic DNA isolation from plant tissue.
The isolated material is perfect for further analyzes and tests by PCR and real-time PCR methods and for sequencing.

The **MagnifiQ™** product series is 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

	650A-16U-64		650A-16U-256		
component	**quantity**	**cat #**	**quantity**	**cat #**	**storage**
XP-PT - extraction strip	4 pcs	K-P96U22XPT	16 pcs	K-P96U22XPT	15–25 °C
LPE lysis buffer	56 ml	K-LPE-56	225 ml	K-LPE-225	15–25 °C
Proteinase K	1.5 ml	K-PRK-15A	4 x 1.5 ml	K-PRK-15A	2–8 °C*
L3P precipitation solution	7 ml	K-L3P-7	28 ml	K-L3P-28	15–25 °C
tip comb 8	8 pcs	K-C8U-8	32 pcs	K-C8U-32	15–25 °C
protective film	4 pcs	K-MQF-4	16 pcs	K-MQF-16	15–25 °C

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

	650A-16V-64		650A-16V-256		
component	**quantity**	**cat #**	**quantity**	**cat #**	**storage**
XP-PT - extraction strip	4 pcs	K-P96V22XPT	16 pcs	K-P96V22XPT	15–25 °C
LPE lysis buffer	56 ml	K-LPE-56	225 ml	K-LPE-225	15–25 °C
Proteinase K	1.5 ml	K-PRK-15A	4 x 1.5 ml	K-PRK-15A	2–8 °C*
L3P precipitation solution	7 ml	K-L3P-7	28 ml	K-L3P-28	15–25 °C
tip comb 8	8 pcs	K-C8U-8	32 pcs	K-C8U-32	15–25 °C
protective film	4 pcs	K-MQF-4	16 pcs	K-MQF-16	15–25 °C

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

Additional equipment and reagents

Necessary

- 1.5 ml Eppendorf tubes (sample lysis)
- automated pipette
- pipette tips
- Beadbeater
- centrifuge
- thermoblock

Optional

- RNAse (10 µl per sample), cat # 1006-10
- bead-beater tubes M45 (metallic beads), cat # K-2M-50

Material preparation

Dry, powdered plant tissue: 20 - 50 mg
Fresh or frozen, powdered plant tissue: 40 - 80 mg

1. Transfer appropriate amount of powdered plant material to the 1.5 ml sterile Eppendorf tube (not included).
2. Add **800 µl** of **LPE** buffer and **20 µl Proteinase K.**
3. Vortex the sample for **10 s** and incubate for **10 min** at **50 °C** with shaking at **1200 RPM.**
4. Centrifuge for **5 min** at **14 000 RPM**.
5. Transfer **500 µl** of supernatant to the 1.5 ml Eppendorf tube (not included).

   Optional RNA removal. Add **10 µl** of **RNAse** (cat # 1006-10). Vortex the sample for 10 s and Incubate for **10 min** at **50 °C** with shaking at **800 RPM**.
6. Add **100 µl** of **L3P** precipitation solution and by inverting the tube three times.
7. Put on ice for **3 min**.
8. Centrifuge for **10 min** at **14 000 RPM**.
9. **Attention.** In the isolation protocol, use **400 µl** of supernatant as the sample.

   Follow point 1. of the protocol.

Dry, unpowdered plant tissue: 20 - 50 mg
Fresh or frozen, unpowdered plant tissue: 40 - 80 mg

Additional reagents you will need:

- **bead-beater tubes M45 (metallic beads)**, cat # K-2M-50

1. Transfer the appropriate amount of cutted but unpowdered plant material to a **bead-beat tube** containing 2 metallic beads.
2. Run **3** cycles for **20 s** at maximum power with **1 min** rest time in between to enable the sample to cool down to room temperature.
3. Add **800 µl** of **LPE** buffer and **20 µl** of **Proteinase K.**
4. Vortex the sample for **10 s** and incubate for **10 min** at **50 °C** with shaking at **1200 RPM.**
5. Centrifuge for **5 min** at **14 000 RPM**.
6. Transfer **500 µl** of supernatant to the 1.5 ml Eppendorf tube (not included).

   Optional RNA removal. Add **10 µl** of **RNAse** (cat # 1006-10). Vortex the sample for 10 s and Incubate for **10 min** at **50 °C** with shaking at **800 RPM**.
7. Add **100 µl** of **L3P** precipitation solution and by inverting the tube three times.
8. Put on ice for **3 min**.
9. Centrifuge for **10 min** at **14 000 RPM**.
10. **Attention.** In the isolation protocol, use **400 µl** of supernatant as the sample.

    Follow point 1. of the protocol.

Protocol

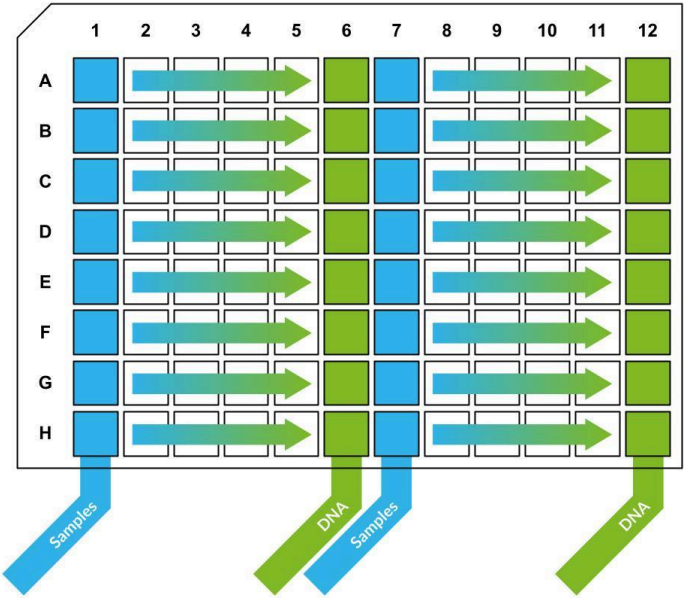
Protocol files

device	protocol name	protocol file	installation
Auto-Pure Mini	MQ-PLT-MI	aabiot.com/protocols/magnifiq/MI/MQ-PLT-MI.txt	1. Create folder "items" on a USB drive and copy the protocol file to it. 2. Insert the USB drive into a USB slot in the device. 3. On a device screen, go to Settings > System > Transfer >Import. 4. Select the protocol and tap "Import".
Auto-Pure Mini (QR code)	MQ-PLT-MI		1. On a device screen, go to Run > ☰ > ⛶ 2. Scan the QR code with the device's scanner.
Auto-Pure 32A	MQ-PLT-32A	aabiot.com/protocols/magnifiq/32A/MQ-PLT-32A.txt	1. Create folder "items" on a USB drive and copy the protocol file to it. 2. Insert the USB drive into a USB slot in the device. 3. On a device screen, go to Settings > Im.&Export > Import. 4. Select the protocol and tap "Import."
Auto-Pure S32	MQ_PLT_S32	aabiot.com/protocols/magnifiq/S32/MQ_PLT_S32.txt	1. Create folder "im_export_protocols" on a USB drive and copy the protocol file to it. 2. Insert the USB drive into a USB slot in the device. 3. On a device screen, go to Protocols >Import. 4. Select the protocol and tap "Import".

Extraction protocol

1. Carefully centrifuge the **XP-PT** plate for **1 min** at **2000 RPM.**
2. Gently remove the foil from the **XP-PT** plate.
3. Add **400 µl** of samples to the wells in columns **1** and **7** of the **XP-PT** plate.
4. Place one or two **XP-PT** plates in the extraction device.
5. Place the appropriate number of **tip combs 8** in the extraction device.
6. Run the protocol on your device.
7. After the program is over, remove the combs and then remove **XP-PT** plate from the extraction device and seal it with **protective film**. The extracted DNA is located in columns **6** and **12**.

   Note. Store extracted material at 4 °C.

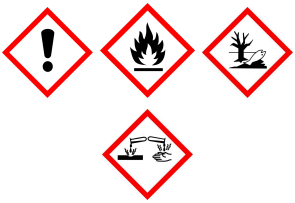


Safety information

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

XP-PT - extraction plate

H225 Highly flammable liquid and vapor.
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.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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.

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