DNA Extract All Reagents Kit

Catalog Numbers 4403319, 4402616, 4402599

Pub. No. MAN0030082 Rev. A.0

Note: Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from **thermofisher.com/support**.

Product description

The DNA Extract All Reagents Kit is a product for releasing PCR-ready DNA from a wide variety of sample types, including cell culture suspensions, blood, buccal swabs, and plant tissues. With a processing time of 5 minutes, this kit guarantees fast and reliable results.

Using the provided DNA lysis solution, simply mix your sample and incubate for 3 minutes to release the DNA from cells or other sample components. Afterwards, add the DNA stabilizing solution to protect the extracted DNA during subsequent processing.

DNA Extract All Reagents Kit can lyse many different types of samples to create sample lysates. qPCR can be performed directly on these sample lysates. DNA purification is unnecessary.

For robust PCR amplification, the DNA Extract All Reagents Kit offers the flexibility to choose between three master mixes:

Master mix	Cat. No.
TaqMan™ GTXpress™ Master Mix	4401857, 4401890, 4401892, 4403311
TaqMan™ OpenArray™ Genotyping Master Mix (for pre-amplified samples only)	4404846
TaqPath™ ProAmp™ Master Mix	A30865, A30866, A30867, A30871, A30872

Depending on your experimental requirements, PCR can be performed using either Fast or Standard mode thermal cycling conditions.

The DNA Extract All Reagents Kit is included in the TaqMan™ Sample-to-SNP™ Kit, providing a rapid and simple workflow for DNA extraction and genotyping in less than 1 hour. For complete workflow details, please refer to the *TaqMan™ Sample-to-SNP™ Kit User Guide*.

The DNA Extract All Reagents Kit is available in three sizes. See “Contents and storage” on page 1.

Contents and storage

Table 1 DNA Extract All Reagents Kit (Cat. No. 4403319, 5 mL)

Component	Amount	Storage
Lysis Solution	5 mL	2–8°C
DNA Stabilizing Solution	5 mL	2–8°C

Table 2 DNA Extract All Reagents Kit (Cat. No. 4402616, 20 mL)

Component	Amount	Storage
Lysis Solution	20 mL	2–8°C
DNA Stabilizing Solution	20 mL	2–8°C

Table 3 DNA Extract All Reagents Kit (Cat. No. 4402599, 200 mL)

Component	Amount	Storage
Lysis Solution	200 mL	2–8°C
DNA Stabilizing Solution	200 mL	2–8°C

Prepare the samples

Lyse the samples

1. Obtain the samples for lysis according to Table 4.
2. Thoroughly mix the Lysis Solution.
3. Add one volume of Lysis Solution to each 1.5-mL microcentrifuge tube or well of the plate containing the sample. See Table 4 for volumes based on sample type and sample quantity.
4. Pipette up and down to mix the Lysis Solution and the sample in each tube or plate well.
5. Cap the tubes or seal the plate with an adhesive cover, then centrifuge the tubes or plate briefly.

Incubate the samples

Incubate the samples according to sample type as shown in “Preamplify the samples or perform fast genotyping” on page 2. For samples incubated at 95°C, cool at room temperature for 30 seconds before stabilizing the DNA (see “Stabilize the DNA” on page 2).

Stabilize the DNA

1. Thoroughly mix the DNA Stabilizing Solution.
2. Open the tube or uncover the plate.
3. Add one volume of DNA Stabilizing Solution to each tube or well of the plate containing sample. See Table 4 for volumes based on sample type.
4. Pipette up and down to mix the solution and the sample in each tube or plate well.
5. Cap the tubes or seal the plate with an adhesive cover, then centrifuge the tubes or plate briefly.

(Optional) Store the sample lysates

You can store the sample lysate at 4°C. For longer storage, you can store the sample lysate at –20°C. Before use, mix the sample lysate.

Preamplify the samples or perform fast genotyping

Note: If the amount of sample is limited, preamplification may be necessary. We recommend the TaqMan™ PreAmp Master Mix Kit (4384267). Applied Biosystems recommends a test study without preamplification to determine if the fluorescence signal is sufficient for good allelic discrimination.

Table 4 Preparation of sample lysate according to sample type

Sample type	Sample input	Volume of Lysis Solution	Incubation Temperature for 3 minutes	Volume of DNA Stabilizing Solution	Notes
Blood (freshly drawn, EDTA, citrate, heparin)	2 µL	20 µL	Room temperature	20 µL	—
Blood, cells, saliva (blood cards, FTA paper)	3-mm punch	50 µL	95°C	50 µL	—
Cell culture suspension	2 µL	20 µL	Room temperature	20 µL	—
Buccal swab	1	400 µL	95°C	400 µL	1. Twist the swab from the cap. 2. Rotate and firmly brush the swab using 20 strokes throughout the inside cheek.[1] 3. Use a 1.5-mL screw-capped tube and immerse the swab into the Lysis Solution. 4. Rotate the swab 5 times. 5. Lift the swab above the Lysis Solution, then press the swab against the side of the tube to squeeze out its contents. 6. Dispose of the swab. 7. Continue preparing the sample (see “Incubate the samples” on page 2).
Rat or mouse tail	1 to 2 mm	50 µL	95°C	50 µL	—
Tissue	1 to 2 mm	50 µL	95°C	50 µL	—
Hair with follicle	2 to 3 follicles	50 µL	95	50 µL	• Ensure that the hair and follicles are immersed in Lysis Solution.
Leaf punch or needle	3-mm leaf punch or 2- to 3-mm needle	50 µL	95°C	50 µL	—
Seed chip	2- to 3-mm seed chip or 2 to 5 mg pulverized seed	50 µL	95°C	50 µL	—
Formalin-fixed paraffin-embedded tissue (FFPE)	2 to 3 pieces of a 10-µm section	200 µL	95°C	200 µL	• Before the lysis step, you can deparafinize the FFPE tissue using a standard protocol. • Ensure that the FFPE is immersed in Lysis Solution.

[1] The swab may be air-dried, re-capped, then stored at room temperature.

Limited product warranty

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For descriptions of symbols on product labels or product documents, go to thermofisher.com/symbols-definition.

Revision history: Pub. No. MAN0030082A.0

Revision	Date	Description
A.0	20 November 2023	New document for the DNA Extract All Reagents Kit.