

BILATEST® Food Kit

100 Extractions

Product description

The BILATEST® Food Kit is designed for the fast and easy isolation of PCR-ready genomic DNA from food material.

Included reagents

Reagent	Volume
(1) Magnetic Beads	3ml
(2) Lysis Buffer	75ml
(3) Precipitation Buffer	30ml
(4) Binding Buffer	80ml
(5) Washing Buffer A	90ml
(6) Washing Buffer B	90ml
(7) Washing Buffer C	100ml
(8) Elution Buffer	10ml

The **Elution Buffer (8)** is 10mM Tris-HCl pH 8.0.

This kit contains enough materials for 100 isolations from 200 mg food material. The kit is scalable for sample preparation using 2 g starting material (see protocol below).

Required Materials

70% Ethanol

1 ml RNase A (10 mg/ml)

Magnetic Separator

(e.g. BILATEST® Magnetic Separator M12+12 for 1.5 ml and 2.0 ml tubes, Order-No. 210141).

Storage Conditions and Safety Information

This kit may be stored at room temperature (15-25°C) and is stable for at least 1 year following delivery. The kit buffers contain irritant substances. Take appropriate laboratory safety measures and wear gloves when handling.

UV Measurements

In some cases, traces of magnetic beads will remain in the eluate after removal from the tube. These beads will not interfere with PCR and most downstream applications but may increase the background in UV measurements. In such a case, prior to UV analysis, we recommend an additional application of the magnetic field to the eluate for 3 minutes in order to remove any traces of magnetic beads. For pure DNA the expected A_{260}/A_{280} is between 1.8 – 1.9. The A_{260} value should fall between 0.1 and 1.0 for accurate readings.

Purification Protocol for DNA from 200 mg food

1. Place 200 mg of well homogenized food material in a 2 ml microfuge tube. Add **750 µl Lysis Buffer (2)** and 10 µl **RNase A**, mix by vortexing and incubate for 10 minutes at 37°C.
2. Add **300 µl Precipitation Buffer (3)** and vortex.
3. Centrifuge for 5 minutes at high speed (14000 rpm) in a standard tabletop micro centrifuge.
4. Transfer the supernatant to a fresh 2 ml tube. Avoid pipetting floating material from the top of the liquid phase.
5. Add **30 µl** resuspended **Magnetic Beads (1)** and **0.8 volume** of **Binding Buffer (4)** (e.g., for 1000 µl supernatant add **800 µl of Binding Buffer (4)**). Mix with 6 pipetting strokes and incubate 5 minutes at room temperature.
6. Following incubation, place the tube in a **Magnetic Separator** to draw the beads to the side of the tube for 2 minutes. Pipette off the supernatant and then remove the tube from the magnet.
7. Add **900 µl Washing buffer A (5)** to the tube. Resuspend the beads in the washing buffer by pipetting the bead pellet up and down 15 times and leave it for 1 minute. Separate the beads using the **Magnetic Separator** and discard the supernatant.
8. Repeat the washing procedure using **Washing Buffer B (6)**.

9. Repeat the washing procedure using **70% ethanol**.
10. Separate the beads magnetically and remove the supernatant. Then, while leaving the tube in the **Magnetic Separator** and the beads attracted to the side of the tube, gently add **1 ml Washing Buffer C (7)**, being careful not to disrupt the pellet. Pipette off **Washing Buffer C (7)** completely one minute after addition.
11. Add **100 µl** (or another suitable volume) of **Elution Buffer (8)** to the tube and resuspend the beads by pipetting.
12. Incubate the suspension for **10 minutes at 55°C**, with gentle agitation to facilitate complete DNA elution.
13. Following DNA elution place the tube in the **Magnetic Separator** for 1 minute to separate all the beads from solution. Transfer the eluate containing the purified DNA to a clean tube.

Purification Protocol for DNA from 2 g food

1. Place 2 g of food material in a 15 ml (50 ml) tube. Add **5 ml Lysis Buffer (2)** and **65 µl RNase A**, mix by vortexing and incubate for 10 minutes at 37°C.
2. Add **2 ml of Precipitation Buffer (3)** and vortex to mix.
3. Centrifuge for **5 minutes at 4000 rpm**.
4. Transfer 1 ml of the supernatant to a fresh 2 ml microfuge tube and proceed with step 4 in the purification protocol for 200 mg sample.