

Jul 04, 2022

Version 1

## DNA extraction (BOMB) V.1

DOI

[dx.doi.org/10.17504/protocols.io.n2bvj6mdnlk5/v1](https://dx.doi.org/10.17504/protocols.io.n2bvj6mdnlk5/v1)

Tsu-Chun Hung<sup>1</sup>, Yin-Tse Huang<sup>1</sup>

<sup>1</sup>KMU



Yin-Tse Huang

Kaohsiung Medical University

### Create & collaborate more with a free account

Edit and publish protocols, collaborate in communities, share insights through comments, and track progress with run records.

Create free account

OPEN  ACCESS



DOI: <https://dx.doi.org/10.17504/protocols.io.n2bvj6mdnlk5/v1>

**Protocol Citation:** Tsu-Chun Hung, Yin-Tse Huang 2022. DNA extraction (BOMB). **protocols.io**  
<https://dx.doi.org/10.17504/protocols.io.n2bvj6mdnlk5/v1>

**License:** This is an open access protocol distributed under the terms of the **Creative Commons Attribution License**, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

**Protocol status:** Working

We use this protocol and it's working

**Created:** July 04, 2022



**Last Modified:** September 13, 2023

**Protocol Integer ID:** 65887

**Keywords:** dna extraction, bomb, dna, extraction

## Abstract

DNA extraction (BOMB)

## Troubleshooting



## Sample Collection

3m

1 Add  200  $\mu\text{L}$  of **1mm beads** to 2ml enppendorf tube

30s

2 Add  200  $\mu\text{L}$  of **0.5mm beads** to 2ml enppendorf tube

30s

3 Add  225  $\mu\text{L}$  of **TE buffer** to 2ml enppendorf tube

30s

### Note

TE buffer is in 4°C fridge

4 Add  375  $\mu\text{L}$  of **lysis buffer** to 2ml enppendorf tube

30s

### Note

Lysis buffer is in 4°C fridge

5 Add  267  $\mu\text{L}$  of **10M ammonium acetate** to 2ml enppendorf tube

### Note

10M ammonium acetate is in 4°C fridge

6 Collect  10-20 mg of **sample** to 2ml enppendorf tube


1m

## Sample crush

4m

7 Put 2ml enppendorf tube in mixmill for sample crush, at this condition: 30 rpm/s, for 4mins

4m

 00:04:00



## Centrifugation

3m

- 8 Put 2ml eppendorf tube in centrifuge for centrifugation, at this condition:

3m

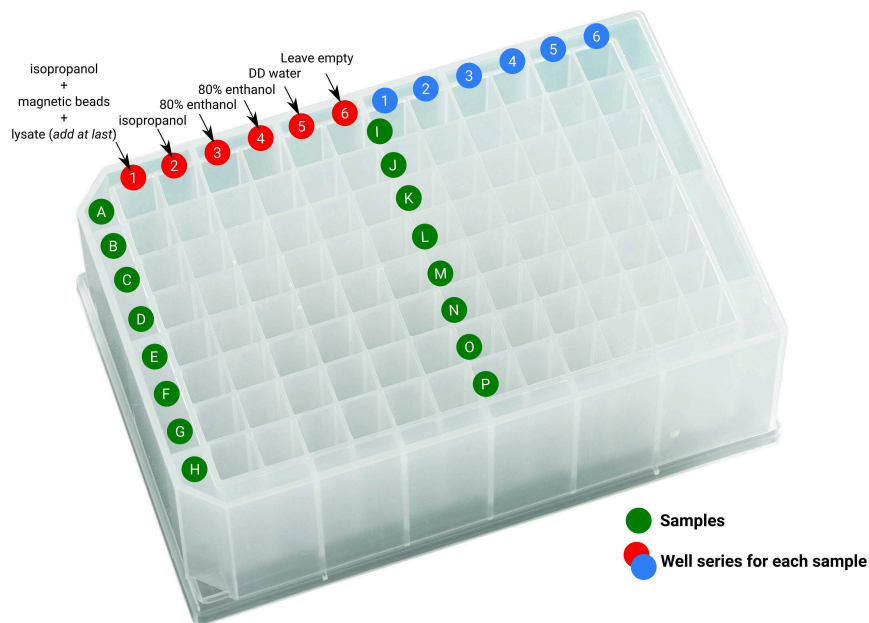
17.0 x g, 25°C, 00:03:00

## DNA purification

37m 30s

- 9 Add 350  $\mu$ L of **isopropanol** to the 1st well of 96 well plate

30s




- 9.1 Add 125  $\mu$ L of **magnetic beads** (10 mg/ml) to the 1st well of 96 deep well plate

30s

### Note






Shake the bottle and pipetting before using magnetic beads



- 9.2 Add  200  $\mu\text{L}$  of the **sample (lysate)** from the 2ml centrifuged tube to the 1st well of 96 deep well plate

30s

**Note****USUALLY ADD at LAST**

- 10 Add  400  $\mu\text{L}$  of **isopropanol** to the 2nd well of 96 deep well plate
- 11 Add  300  $\mu\text{L}$  of **80% ethanol** to the 3rd well of 96 deep well plate
- 12 Add  300  $\mu\text{L}$  of **80% ethanol** to the 4th well of 96 deep well plate
- 13 Add  100  $\mu\text{L}$  of **DD water** to the 5th well of 96 deep well plate
- 14 Put the prepared 96 deep well plate in the automated DNA extraction machine
- 15 After the extraction is done, collect  100  $\mu\text{L}$  of the **eluted sample** as the DNA template for downstream experiments

30s

30s

30s

30s

34m