

3 ▼

Feb 10, 2022

Quick Protocol for Monarch® DNA Gel Extraction Kit (NEB #T1020) V.3

New England Biolabs¹¹New England Biolabs

1

dx.doi.org/10.17504/protocols.io.bf7ujrnw**New England Biolabs (NEB)**Tech. support phone: **+1(800)632-7799** email: **info@neb.com**

Isabel Gautreau
New England Biolabs

This is the quick version of the Monarch® DNA Gel Extraction Kit Protocol (NEB #T1020). For the full protocol, please click [here](#).

DOI

dx.doi.org/10.17504/protocols.io.bf7ujrnw<https://www.neb.com/protocols/2015/12/08/quick-protocol-for-monarch-dna-gel-extraction-kit-t1020>

New England Biolabs 2022. Quick Protocol for Monarch® DNA Gel Extraction Kit (NEB #T1020). **protocols.io**

<https://dx.doi.org/10.17504/protocols.io.bf7ujrnw>

Isabel Gautreau



Extracting, Monarch DNA Gel Extracting Kit, extracting dna, DNA, gel extraction

protocol ,

May 10, 2020

Feb 10, 2022

36820

For detailed protocol and more information, visit www.neb.com/T1020

The full protocol is available [here](#).



A video protocol is available [here](#).


MATERIALS

 **Monarch® DNA Gel Extraction Kit New England**

Biolabs Catalog #T1020

Please refer to Safety Data Sheets (SDS) for health and environmental hazards.










- Add 4 volumes of ethanol ($\geq 95\%$) to one volume of DNA Wash Buffer.
 - For 50-prep kit, add 20 ml of ethanol to 5 ml of Monarch DNA Wash Buffer
 - For 250-prep kit, add 100 ml of ethanol to 25 ml of Monarch DNA Wash Buffer
- All centrifugation steps should be carried out at  **16.000 x g** (\sim  **13.000 rpm**).
- Please note: column holds 800 μ l

- 1 Excise the DNA fragment from the agarose gel, taking care to trim excess agarose. Transfer to a 1.5 ml microfuge tube and weigh the gel slice.** Minimize exposure to UV light.
- 2 Add 4 volumes of Gel Dissolving Buffer to the gel slice** (e.g., 400 μ l buffer per 100 μ l or 100 mg agarose).
- 3 Incubate the sample between 37–55°C (typically  50 °C), vortexing periodically until the gel slice is completely dissolved** (generally 5-10 minutes).

The time that takes a gel slice to melt depends on the size of the slice, the temperature used in the incubation as well as the percent agarose used in the gel. The time recommended above should be used just as a guideline.

For DNA fragments > 8 kb, an additional 1.5 volumes of water should be added after the slice is dissolved to mitigate the tighter binding of larger pieces of DNA (e.g., 100 μ l gel slice: 400 μ l Gel Dissolving Buffer: 150 μ l water).

Insert column into collection tube and load sample onto the column. Spin for

- 4  **16000 x g, 00:01:00** , then discard flow-through.
- 5 **Re-insert column into collection tube. Add**
 **200 µL DNA Wash Buffer (with ethanol added)** and spin for
 **16000 x g, 00:01:00** . Discarding flow-through is optional.
- 6 **Repeat Step 5: Re-insert column into collection tube. Add**
 **200 µL DNA Wash Buffer (with ethanol added)** and spin for
 **16000 x g, 00:01:00** . Discarding flow-through is optional.
- 7 **Transfer column to a clean 1.5 ml microfuge tube.** Use care to ensure that the tip of the column does not come into contact with the flow-through. If in doubt, re-spin for  **00:01:00** .
- 8 **Add \geq  6 µL DNA Elution Buffer to the center of the matrix. Wait for  00:01:00 , and spin for  16000 x g, 00:01:00 to elute the DNA.**

Typical elution volumes are 6–20 µl. Nuclease-free water (pH 7–8.5) can also be used to elute the DNA. Yield may slightly increase if a larger volume of DNA Elution Buffer is used, but the DNA will be less concentrated. For larger size DNA (≥ 10 kb), heating the elution buffer to 50°C prior to use can improve yield.