



FEB 27, 2023

## 🌐 Ethanol precipitation of nucleic acid

Andreas Sagen<sup>1</sup>

<sup>1</sup>University of Oslo



Andreas Sagen

University of Oslo, The National Institute of Occupational H...

### ABSTRACT

Simple protocol to precipitate nucleic acids

### OPEN ACCESS

**Protocol Citation:** Andreas Sagen 2023. Ethanol precipitation of nucleic acid.

**protocols.io**

<https://protocols.io/view/ethanol-precipitation-of-nucleic-acid-cn9evh3e>

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**Protocol status:** In development  
We are still developing and optimizing this protocol


**Created:** Feb 10, 2023

**Last Modified:** Feb 27, 2023

**PROTOCOL integer ID:**  
76806

## Sodium acetate (3 M, pH 5.2)

1 Add  25 mL distilled water to a  50 mL canonical tube


2 Measure  12.305 g Sodium acetate

Materials:

 Sodium acetate **Merck MilliporeSigma (Sigma-Aldrich) Catalog #S2889**

3 Adjust pH to  5.2 with glacial acetic acid

Materials:

 Acetic acid **Merck MilliporeSigma (Sigma-Aldrich) Catalog #A6283**






4 Autoclave solution at  121 °C for  00:15:00

15m

## Precipitation

2h

5 Add  100 µL lysate in a reaction tube

6 Add  10 µL Sodium acetate (  3 Molarity (M) ,  5.2 ),  2 µL 250 µg/mL glycogen and  333 µL absolute ethanol

Material:

 Glycogen **Merck MilliporeSigma (Sigma-Aldrich) Catalog #G1767**


 Sodium acetate **Merck MilliporeSigma (Sigma-Aldrich) Catalog #S2889**

7 Vortex solution, then precipitate at  -20 °C or  -80 °C for  01:00:00 or  Overnight


1h

### Note

Longer incubation and lower temperature provide better recovery of nucleic acids.

8 Centrifuge at  12000 rcf, 4°C, 00:30:00 . Discard supernatant, and repeat step 9.1 and 9.2, 2 times in total

30m

8.1 Discard supernatant, and resuspend pellet in  500 µL 70% absolute ethanol

8.2 Centrifuge at  12000 rcf, 4°C, 00:30:00

30m

9 Air-dry the pellet

**Note**

Avoid over-drying the pellet, as it then takes more time to dissolve.

10 Resuspend pellet in  20 µL TE-buffer or nuclease-free water