Ethanol precipitation of nucleic acid

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ABSTRACT

Simple protocol to precipitate nucleic acids

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

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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 pH 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 ([M] 3 Molarity (M) , pH 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