Protocol B: Preparation of ATP for transfection

David Booth

Abstract

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Protocol

Dissolve solid disodium adenosine triphosphate (Sigma A7699) in a minimal volume of sterile water

Step 1.

Titrate ATP solution with 1 M NaOH to pH 7.5, monitoring the pH with pH strips

Step 2.

Sterile filter ATP solution through a 0.22 µm filter

Step 3.

Quantify ATP using UV-Vis spectrophotometry

Step 4.

- Prepare a small aliquot of a 100 fold dilution of ATP in water
- Measure the optical absorbance at 259 nm with a UV-Vis spectrophotometer
- Determine the concentration of ATP with an extinction coefficient of 15,400 $M^{-1}cm^{-1}$.

Dilute ATP to a final concentration of 250 mM

Step 5.

- Adjust volume from step 4 with water that has been sterilly filtered through a 0.22 µm filter

Store at -20°C

Step 6.