


# Lithium Chloride Precipitation Solution

Catalog Number AM9480

Pub. No. 4386633 Rev. C

Contents	Amount	Storage
7.5 M Lithium Chloride, 50 mM EDTA, pH 8.0 <sup>[1]</sup>	100 mL	2°C to 8°C

<sup>[1]</sup> Appears as a clear liquid.

 **WARNING!** Read the Safety Data Sheets (SDSs) and follow the handling instructions. Wear appropriate protective eyewear, clothing, and gloves. Safety Data Sheets (SDSs) are available from [thermofisher.com/support](http://thermofisher.com/support).

## Product description

Invitrogen™ Lithium Chloride Precipitation Solution is provided ready for use and requires no extra preparation. This solution has been filtered through a 0.2 µm filter into a sterile autoclavable bottle. If precipitates form, warm solution to 37°C to resuspend.

LiCl precipitation is useful following RNA isolation or in vitro transcription, because RNA is efficiently precipitated, while protein, carbohydrates, and DNA are very inefficiently precipitated or are not precipitated at all. LiCl does not precipitate transfer RNA and unincorporated nucleotides. The minimum length required for LiCl precipitation of RNA is unknown, but our experiments indicate that RNA as small as 100 nucleotides, prepared by in vitro transcription, can be efficiently precipitated.

## Precipitate RNA from a solution at a concentration ≥ 400 ng/µL

1. Bring the final concentration of LiCl in the RNA solution to 2.5 M.
2. Chill the solution at -20°C for 30 minutes.
3. Centrifuge at top speed in a microcentrifuge for 15 minutes.
4. Discard the supernatant, then wash the pellet with ice-cold 70% ethanol to remove residual salt.
5. Resuspend in nuclease-free water or 10 mM Tris, 1 mM EDTA.

## Quality control

Lithium Chloride Precipitation Solution is tested in the following quality control assays before and after final packaging.

**Nonspecific endonuclease activity:** A sample is incubated with supercoiled plasmid DNA and analyzed by agarose gel electrophoresis.

**Exonuclease activity:** A sample is incubated with labeled double-stranded DNA, followed by PAGE analysis.

**RNase activity:** A sample is incubated with labeled RNA and analyzed by PAGE.

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