

Product Data Sheet

Product Name: LiCl
Cat. No.: GC12077

Chemical Properties

Cas. No. 7447-41-8

Chemical Name lithium chloride

SMILES [Cl-].[Li+]

Formula CLi M.Wt 42.39

Solubility $\geq 4.2\text{mg/mL}$ in Water Storage Store at RT

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

IC50: N/A

LiCl is a typical ionic compound, though the small size of the Li⁺ ion makes its properties not seen for other alkali metal chlorides, such as the extraordinary solubility in polar solvents and hygroscopic properties.

In vitro: Though precipitation with a monovalent cation or alcohol is much more widely used, LiCl has been frequently used to precipitate RNA. LiCl precipitation gives various advantages over other methods: LiCl does not precipitate DNA, protein and carbohydrate efficiently. LiCl can be also used for removing translation inhibitors or cDNA synthesis from RNA preparations. LiCl can be also used as a simple rapid method for recovering RNA from in-vitro transcription reactions [1]. In addition, a method for isolation of large, translationally active RNA samples has been presented. In this study,

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Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

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the procedure included homogenization of samples in 5 m guanidine monothiocyanate followed by direct precipitation of RNA from the guanidinium by 4 m LiCl. The advantages of this method include simplicity, speed, avoidance of ultracentrifugation, and its applicability to large numbers of samples. The method yielded large mRNA precursors up to 10 kb [2].

In vivo: Currently, there is no animal data reported.

Clinical trial: Up to now, LiCl has not been used clinically.

References:

- [1] BARLOW JJ, MATHIAS AP, WILLIAMSON R, GAMMACK DB. A simple method for the quantitative isolation of undegraded high molecular weight ribonucleic acid. Biochem Biophys Res Commun.1963 Sep 10;13:61-6.
- [2] Cathala, G. , Savouret, J., Mendez, B., West, B. L., Karin, M., Martial, J. A., and Baxter, J. D. (1983). "A Method for Isolation of Intact, Translationally Active Ribonucleic Acid".DNA.2(4): 329–335.

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