

Benzoic acid lithium

Chemical Properties

CAS No. :	553-54-8
Formula:	C7H5LiO2
Molecular Weight:	128.06
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	Benzoic acid lithium, an aromatic alcohol present in many plants, is widely used as an additive in food, beverage and cosmetic products. It inhibits bacteria and fungi and can serve as a preservative.
In vitro	Methods: The effects of Benzoic acid lithium on the efflux of glutamate and orotic acid were investigated in HEK293 cells transfected with human OAT2. The disk diffusion method was used to detect the antibacterial activity of benzoic acid against multiple bacterial strains. Results: : 1. Combined treatment with 1 mM Benzoic acid lithium and lithium could promote OAT2-mediated efflux of glutamate and orotic acid in hOAT2-expressing HEK293 cells [2]. 2. Benzoic acid lithium (0.5, 2.0 mg/disk) exhibited antibacterial activity against Staphylococcus aureus, Staphylococcus epidermidis, Pseudomonas aeruginosa and Bacillus cereus [4].
In vivo	Methods: Weaned piglets were fed a basal diet supplemented with Benzoic acid lithium (2000 mg/kg) combined with thymol (100 mg/kg) for 1 to 14 consecutive days. The effects on growth performance, nutrient digestion and absorption, and diarrhea incidence were investigated. Results: Dietary supplementation with Benzoic acid lithium (2000 mg/kg) combined with thymol (100 mg/kg) for 1-14 consecutive days significantly improved growth performance, promoted nutrient digestion and absorption, and reduced diarrhea in weaned piglets [3].

Solubility Information

Solubility	H2O: 80 mg/mL (624.71 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	7.8088 mL	39.0442 mL	78.0884 mL
5 mM	1.5618 mL	7.8088 mL	15.6177 mL
10 mM	0.7809 mL	3.9044 mL	7.8088 mL
50 mM	0.1562 mL	0.7809 mL	1.5618 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Nair B, et al. Final report on the safety assessment of Benzyl Alcohol, Benzoic Acid, and Sodium Benzoate. Int J Toxicol. 2001;20 Suppl 3:23-50.

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