

N-Lauroylsarcosine

Chemical Properties

CAS No. : 97-78-9

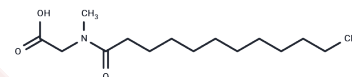
Formula: C₁₅H₂₉NO₃

Molecular Weight: 271.4

Keep away from moisture

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



Biological Description

Description	N-Lauroylsarcosine is an amphiphilic anionic surfactant derived from sarcosine , commonly used as a foaming agent and detergent for the preparation of ph-sensitive vesicles and micellar aggregates with antiviral activity against HSV.
Targets(IC50)	HSV
In vitro	N-Lauroylsarcosine (LS) effectively inhibited HSV-2 (strain 333) infectivity in cultured cells, with 50% and 90% inhibitory concentrations (ID ₅₀ and ID ₉₀) of 141.76 μM and 225.30 μM, respectively, indicating strong antiviral activity[1].
In vivo	In a murine intravaginal HSV-2 infection model, pretreatment with a 2.5% N-Lauroylsarcosine thermoreversible gel completely prevented infection, with no symptoms or detectable virus in vaginal tissues[1].

Solubility Information

Solubility	H ₂ O: < 1 mg/mL (insoluble) DMSO: 180 mg/mL (663.23 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (14.74 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6846 mL	18.423 mL	36.846 mL
5 mM	0.7369 mL	3.6846 mL	7.3692 mL
10 mM	0.3685 mL	1.8423 mL	3.6846 mL
50 mM	0.0737 mL	0.3685 mL	0.7369 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

Roy S, et al. Thermoreversible gel formulations containing sodium lauryl sulfate or n-Lauroylsarcosine as potential topical microbicides against sexually transmitted diseases. *Antimicrob Agents Chemother.* 2001 Jun;45(6):1671-81.
Piret J, Roy S, Gagnon M, Landry S, Désormeaux A, Omar RF, Bergeron MG. Comparative study of mechanisms of herpes simplex virus inactivation by sodium lauryl sulfate and n-lauroylsarcosine. *Antimicrob Agents Chemother.* 2002 Sep;46(9):2933-42.

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