

Product data sheet



MedKoo Cat#: 573181 Name: Lincomycin hydrochloride anhydrous CAS: 859-18-7 Chemical Formula: C ₁₈ H ₃₅ ClN ₂ O ₆ S Exact Mass: 442.1904 Molecular Weight: 443.996		
Product supplied as:	Powder	
Purity (by HPLC):	≥ 98%	
Shipping conditions	Ambient temperature	
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.	
	In solvent: -80°C 3 months; -20°C 2 weeks.	

1. Product description:

Lincomycin hydrochloride anhydrous is an antibiotic produced by *Streptomyces lincolnensis* var. *lincolnensis*. It has been used in the treatment of staphylococcal, streptococcal, and *Bacteroides fragilis* infections.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	89.0	200.45
Water	89.0	200.45

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	2.26 mL	11.29 mL	22.57 mL
5 mM	0.45 mL	2.26 mL	4.51 mL
10 mM	0.23 mL	1.13 mL	2.26 mL
50 mM	0.05 mL	0.23 mL	0.45 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Nameda S, Miura NN, Adachi Y, Ohno N. Lincomycin protects mice from septic shock in beta-glucan-indomethacin model. *Biol Pharm Bull.* 2007 Dec;30(12):2312-6. doi: 10.1248/bpb.30.2312. PMID: 18057718.
2. Kim DG, Kim HY, Kim MY, Lee MY, You KR. Lincomycin abrogates dexamethasone-enhanced melanogenesis in B16 melanoma cells. *Pigment Cell Res.* 1998 Jun;11(3):143-50. doi: 10.1111/j.1600-0749.1998.tb00724.x. PMID: 9730321.

In vivo study

1. Nameda S, Miura NN, Adachi Y, Ohno N. Lincomycin protects mice from septic shock in beta-glucan-indomethacin model. *Biol Pharm Bull.* 2007 Dec;30(12):2312-6. doi: 10.1248/bpb.30.2312. PMID: 18057718.

7. Bioactivity

Biological target:

Lincomycin Hydrochloride(U10149A) is an antibiotic produced by *Streptomyces lincolnensis* var.

In vitro activity

Treatment with LM (lincomycin) or LM + DX (dexamethasone) stimulated proliferation of melanoma cells with minimal cytotoxicity, while DX did not influence cell proliferation either alone or in combination with LM. Treatment with LM alone increased tyrosinase

Product data sheet



activity slightly and reduced melanin content in a dose-dependent manner. However, LM counteracted the pronounced increase in tyrosinase elicited by DX and also abrogated the dose-dependent increase in melanin content elicited by DX.

Reference: Pigment Cell Res. 1998 Jun;11(3):143-50. <https://pubmed.ncbi.nlm.nih.gov/9730321/>

In vivo activity

Lincomycin (LCM), imipenem (IPM), cilastatine (CS), and ampicillin (ABPC) were used for antibiotics treatment. The survival rate of SPG/IND-treated mice was significantly increased by administering LCM or ABPC/IPM/CS, and the effect was more significant by LCM.

Reference: Biol Pharm Bull. 2007 Dec;30(12):2312-6. <https://pubmed.ncbi.nlm.nih.gov/18057718/>

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.