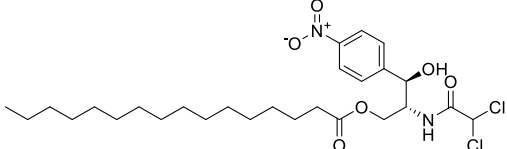


Product data sheet



MedKoo Cat#: 592235 Name: Chloramphenicol palmitate CAS: 530-43-8 (palmitate) Chemical Formula: C ₂₇ H ₄₂ Cl ₂ N ₂ O ₆ Exact Mass: 560.242 Molecular Weight: 561.541	
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:

Chloramphenicol palmitate is an Antibacterial and Antirickettsial.

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	100.0	178.08

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.78 mL	8.90 mL	17.81 mL
5 mM	0.36 mL	1.78 mL	3.56 mL
10 mM	0.18 mL	0.89 mL	1.78 mL
50 mM	0.04 mL	0.18 mL	0.36 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. Nozaka A, Nishiwaki A, Nagashima Y, Endo S, Kuroki M, Nakajima M, Narukawa M, Kamisuki S, Arazoe T, Taguchi H, Sugawara F, Kamakura T. Chloramphenicol inhibits eukaryotic Ser/Thr phosphatase and infection-specific cell differentiation in the rice blast fungus. *Sci Rep.* 2019 Jun 26;9(1):9283. doi: 10.1038/s41598-019-41039-x. PMID: 31243315; PMCID: PMC6594944.
2. Louzoun Zada S, Green KD, Shrestha SK, Herzog IM, Garneau-Tsodikova S, Fridman M. Derivatives of Ribosome-Inhibiting Antibiotic Chloramphenicol Inhibit the Biosynthesis of Bacterial Cell Wall. *ACS Infect Dis.* 2018 Jul 13;4(7):1121-1129. doi: 10.1021/acsinfectdis.8b00078. Epub 2018 May 1. PMID: 29714997; PMCID: PMC6536003.

In vivo study

1. Wu X, Cai Y, Lu S, Xu K, Shi X, Yang L, Huang Z, Xu P. Intra-articular Injection of Chloramphenicol Reduces Articular Cartilage Degeneration in a Rabbit Model of Osteoarthritis. *Clin Orthop Relat Res.* 2019 Dec;477(12):2785-2797. doi: 10.1097/CORR.0000000000001016. PMID: 31764352; PMCID: PMC6907289.
2. Hsu CY, Yang SC, Sung CT, Weng YH, Fang JY. Anti-MRSA malleable liposomes carrying chloramphenicol for ameliorating hair follicle targeting. *Int J Nanomedicine.* 2017 Nov 10;12:8227-8238. doi: 10.2147/IJN.S147226. PMID: 29184410; PMCID: PMC5689027.

7. Bioactivity

Biological target:

Chloramphenicol palmitate can be used as bacterial selection agent in transformed cells containing chloramphenicol resistance genes.

Product data sheet



In vitro activity

The germination percentage and germ-tube length were not affected by Cm (chloramphenicol), whereas the percentage of appressorium formation was significantly and specifically decreased in the presence of 30 and 300 μM Cm (Fig. 1). Addition of excessive Cm (3000 μM) resulted in inhibition of conidial germination and/or germ-tube elongation, which suggested that this Cm concentration inhibited the mitochondrial ribosome (Fig. S1).

Reference: Sci Rep. 2019 Jun 26;9(1):9283. <https://pubmed.ncbi.nlm.nih.gov/31243315/>

In vivo activity

All results indicated that an intra-articular injection of chloramphenicol increased chondrocyte autophagy in rabbits with collagenase-induced OA (osteoarthritis).

Reference: Clin Orthop Relat Res. 2019 Dec;477(12):2785-2797. <https://pubmed.ncbi.nlm.nih.gov/31764352/>

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.