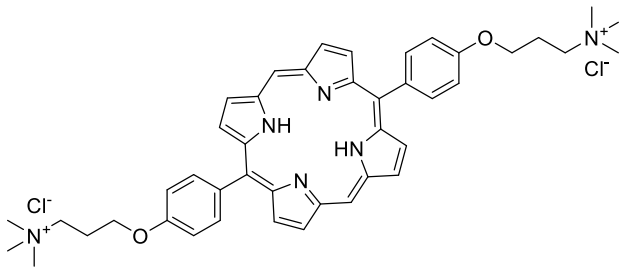
Product data sheet

MedKoo Cat#: 319746 Name: Exeporfinium chloride CAS#: 718638-68-7 (Cl) Chemical Formula: $C_{44}H_{50}Cl_2N_6O_2$ Molecular Weight: 765.824	
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:

Exeporfinium, also known as XF-73, is a dicationic porphyrin anti-microbial which works via weakening bacteria cell walls. Exeporfinium chloride is a potential treatment for methicillin-resistant Staphylococcus aureus (MRSA) and possibly Clostridium difficile. Exeporfinium chloride has completed a phase I clinical trial for nasal decolonisation of MRSA—being tested against 5 bacterial strains.

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	TBD	TBD

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	**1 mg**	**5 mg**	**10 mg**
1 mM	1.31 mL	6.53 mL	13.06 mL
5 mM	0.26 mL	1.31 mL	2.61 mL
10 mM	0.13 mL	0.65 mL	1.31 mL
50 mM	0.03 mL	0.13 mL	0.26 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. Farrell DJ, Robbins M, Rhys-Williams W, Love WG. In vitro activity of XF-73, a novel antibacterial agent, against antibiotic-sensitive and -resistant Gram-positive and Gram-negative bacterial species. Int J Antimicrob Agents. 2010 Jun;35(6):531-6. doi: 10.1016/j.ijantimicag.2010.02.008. Epub 2010 Mar 25. PMID: 20346634.
2. Ooi N, Miller K, Hobbs J, Rhys-Williams W, Love W, Chopra I. XF-73, a novel antistaphylococcal membrane-active agent with rapid bactericidal activity. J Antimicrob Chemother. 2009 Oct;64(4):735-40. doi: 10.1093/jac/dkp299. Epub 2009 Aug 18. PMID: 19689976.

In vivo study

TBD

7. Bioactivity

Biological target:

XF-73 is a synthetic dicationic porphyrin derivative with antibacterial activity.

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In vitro activity

The effects of XF-73 on the growth and survival of S. aureus SH1000 were investigated by viable count and culture absorbance techniques. XF-73 was rapidly bactericidal against S. aureus SH1000 and demonstrated more rapid killing kinetics than all other comparator agents when tested at an equivalent multiple (4x) of the MIC. Exposure of S. aureus to XF-73 for 10 min completely inhibited DNA, RNA and protein synthesis. XF-73 had no effect on transcription and translation in vitro. Cells exposed to XF-73 gave a positive response in the BacLight assay, which detects membrane damage. The drug also caused substantial loss of K(+) and ATP from the cell, but did not promote bacterial lysis.

Reference: J Antimicrob Chemother. 2009 Oct;64(4):735-40. https://pubmed.ncbi.nlm.nih.gov/19689976/

In vivo activity

TBD

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.