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- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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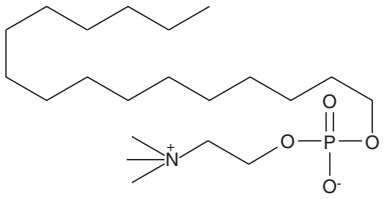
PRODUCT INFORMATION

Miltefosine

Item No. 63280

CAS Registry No.:	58066-85-6
Formal Name:	2-[[(hexadecyloxy)hydroxyphosphinyl]oxy]-N,N,N-trimethyl-ethanaminium, inner salt
Synonyms:	HPC, NSC 605583
MF:	$C_{21}H_{46}NO_4P$
FW:	407.6
Purity:	≥98%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥1 year



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Miltefosine is supplied as a crystalline solid. A stock solution may be made by dissolving the miltefosine in the solvent of choice, which should be purged with an inert gas. Miltefosine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of miltefosine in these solvents is approximately 1.25, 0.8, and 0.05 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of miltefosine can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of miltefosine in PBS, pH 7.2, is approximately 2.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Miltefosine is an inhibitor of CTP:phosphocholine cytidylyl transferase and has antimetastatic properties.[1-3] At concentrations of 3 and 25 µM, miltefosine inhibits proliferation of HaCaT cells (immortalized human keratinocyte cell line) by 50% and 94%, respectively.[4] The mechanism of action of miltefosine is not well established, but the antiproliferative effect may be mediated by an increase in cellular ceramide which results in apoptosis. Treatment of cells with 25 µM miltefosine results in a 53% increase in ceramide concentration relative to control.[4] Miltefosine is more than 90% effective in eradicating visceral infections of *Leishmania* species (*kala azar*), although the mechanism of this antiprotozoal activity is also poorly understood.[5]

References

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3. Geilen, C.C., Haase, R., Buchner, K., *et al. Eur. J. Cancer* **27(12)**, 1650-1653 (1991).
4. Wieder, T., Orfanos, C.E., and Geilen, C.C. *J. Biol. Chem.* **273(18)**, 11025-11031 (1998).
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