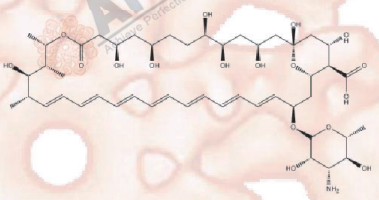
Product Data Sheet

Amphotericin B



Cat. No.:	B1885
CAS No.:	1397-89-3
Formula:	C47H73NO17
M.Wt:	924.08
Synonyms:	
Target:	Microbiology & Virology
Pathway:	Antibiotic
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

≥46.2 mg/mL in DMSO; insoluble in EtOH; insoluble in H2O

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1mg	5mg	10mg
1 mM	1.0822 mL	5.4108 mL	10.8216 mL
5 mM	0.2164 mL	1.0822 mL	2.1643 mL
10 mM	0.1082 mL	0.5411 mL	1.0822 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	amphipathic polyene antibiotic
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	peritoneal macrophages; HEK293 cells expressing TLR2 and CD14
Preparation method:	The solubility of this compound in DMSO is >46.2mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	1, 2, and 4 μg/ml

	Applications:	In peritoneal macrophages from CD14 knockout mice (C57BL/6 CD14–/–) and CD14 wild-type (C57BL/6 CD14+/+) mice, Amphotericin B failed to induce the production of TNF-α in macrophages from CD14–/– mice. HEK293 cells expressing TLR2 and CD14 responded more strongly to Amphotericin B (1, 2, and 4 μg/ml).
In Vivo	**Animal experiment**	
	Animal models:	hamster scrapie model
	Dosage form:	2.5 mg/kg; p.i. injection from 0 to 7 days
	Applications:	In hamsters infected intracerebrally with scrapie, Amphotericin B significantly prolonged the survival time by 14.7 days.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

1. Perni S, Lavorato M, Beam KG. "De novo reconstitution reveals the proteinsrequired for skeletal muscle voltage-induced Ca(2+) release." Proc Natl Acad Sci US A. 2017 Dec 26;114(52):13822-13827.PMID:29229815

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References

[1]. Sau K1,Mambula SS,Latz E,Henneke P,Golenbock DT,Levitz SM.The antifungal drug amphotericin B promotes inflammatory cytokine release by a Toll-like receptor- and CD14-dependent mechanism.J Biol Chem.2003 Sep 26;278(39):37561-8. Epub 2003 Jul 14.

[2]. Demaimay R1,Adjou K,Lasmézas C,Lazarini F,Cherifi K,Seman M,Deslys JP,Dormont D.Pharmacological studies of a new derivative of amphotericin B, MS-8209, in mouse and hamster scrapie.J Gen Virol.1994 Sep;75 (Pt 9):2499-503.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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