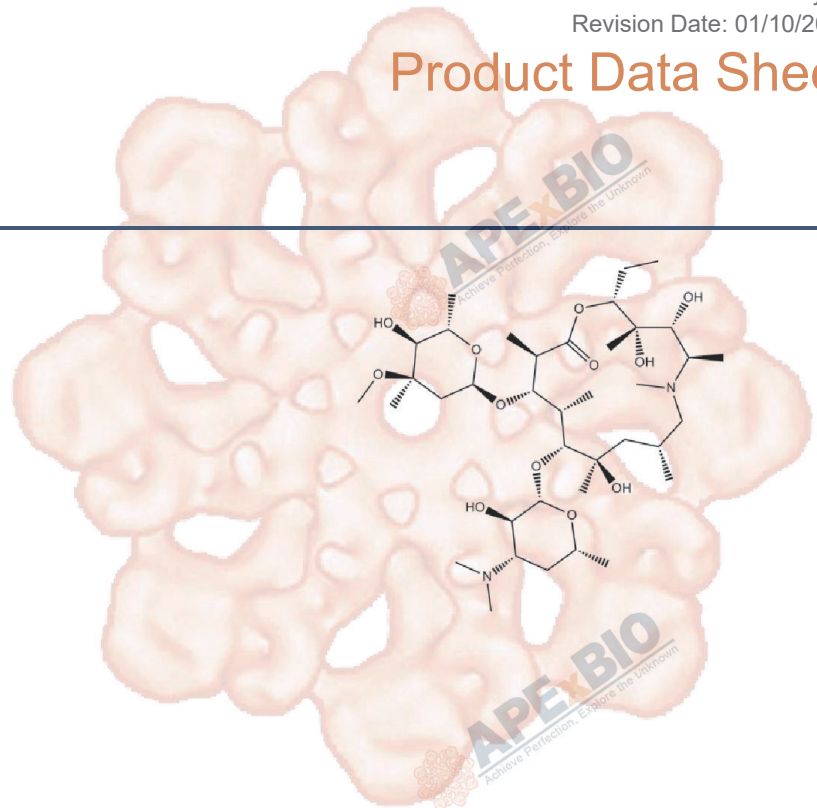


Product Data Sheet

Azithromycin

Cat. No.:	B1398
CAS No.:	83905-01-5
Formula:	C38H72N2O12
M.Wt:	748.98
Synonyms:	
Target:	Microbiology & Virology
Pathway:	Antibiotic
Storage:	Store at -20°C



Solvent & Solubility

≥75.05 mg/mL in DMSO; insoluble in H₂O; ≥102.8 mg/mL in EtOH

In Vitro	Preparing Stock Solutions	Mass			
		Solvent	1mg	5mg	10mg
		Concentration			
		1 mM	1.3351 mL	6.6757 mL	13.3515 mL
		5 mM	0.2670 mL	1.3351 mL	2.6703 mL
		10 mM	0.1335 mL	0.6676 mL	1.3351 mL

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

Biological Activity

Shortsummary	Antibiotic by inhibiting protein synthesis	
IC ₅₀ & Target		
In Vitro	Cell Viability Assay	
	Preparation method:	The solubility of this compound in DMSO is > 30.1 mg/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:	0.32 ~ 25 μM; 72 hrs
	Applications:	The IC ₅₀ values of Azithromycin for <i>T. congolense</i> , <i>T. b. brucei</i> and <i>T. evansi</i>

were 0.19 ± 0.17 , 3.69 ± 2.26 and 1.81 ± 1.82 μM , respectively.

Animal experiment

Animal models: Mice infected with *T. congolense*

Dosage form: 50, 100, 200, 300 and 400 mg/kg; p.o.

Applications: In mice infected with *T. congolense*, Azithromycin dose-dependently killed *T. congolense*, with the initial clearance of the parasites from the peripheral circulation in all treatment groups. However, this was followed by a relapse resulting in the rapid growth of the parasites. On the other hand, the survival rate was significantly prolonged in all treatment groups. A number of mice survived in the 200, 300 and 400 mg/kg Azithromycin groups, while all mice in the control and the 50 and 100 mg/kg Azithromycin groups died.

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.

In Vivo

Product Citations

1. Ng MY, Zhang H, et al. "New in Vitro Assay Measuring Direct Interaction of Nonsense Suppressors with the Eukaryotic Protein Synthesis Machinery." ACS Med Chem Lett. 2018 Nov 21;9(12):1285-1291.PMID:30613341
2. Martin Y Ng, Haibo Zhang, et al. "A new in vitro assay measuring direct interaction of nonsense suppressors with the eukaryotic protein synthesis machinery." bioRxiv. 2018 May 24.

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References

- [1]. Molefe NI, Yamasaki S, Macalanda AMC, Suganuma K, Watanabe K, Xuan X, Inoue N. Oral administration of azithromycin ameliorates trypanosomiasis in *Trypanosoma congolense*-infected mice. Parasitol Res. 2017 Jul 4.

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 APEX BIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term 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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