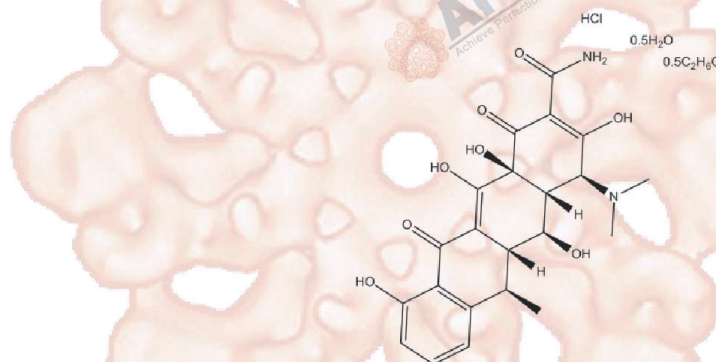


# Product Data Sheet

## Doxycycline hyclate

<b>Cat. No.:</b>	A4052
<b>CAS No.:</b>	24390-14-5
<b>Formula:</b>	C <sub>23</sub> H <sub>29</sub> CIN <sub>2</sub> O <sub>9</sub>
<b>M.Wt:</b>	512.94
<b>Synonyms:</b>	
<b>Target:</b>	Others
<b>Pathway:</b>	Others
<b>Storage:</b>	Store at 4°C



## Solvent & Solubility

≥22.15 mg/mL in DMSO; insoluble in EtOH; ≥49.2 mg/mL in H<sub>2</sub>O with ultrasonic

In Vitro	Preparing Stock Solutions	Mass			
		Solvent	1mg	5mg	10mg
		Concentration			
		1 mM	1.9495 mL	9.7477 mL	19.4955 mL
		5 mM	0.3899 mL	1.9495 mL	3.8991 mL
		10 mM	0.1950 mL	0.9748 mL	1.9495 mL

Please refer to the solubility information to select the appropriate solvent

## Biological Activity

Shortsummary	MMP inhibitor	
IC <sub>50</sub> & Target		
In Vitro	<b>Cell Viability Assay</b>	
	Cell Line:	cultured <i>P. falciparum</i> parasites
	Preparation method:	The solubility of this compound in DMSO is >22.2mg/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:	96-h

	Applications:	In cultured <i>P. falciparum</i> parasites, Doxycycline demonstrated nanomolar antimalarial activity with IC50 value of 330 nM.
In Vivo	<b>Animal experiment</b>	
	Animal models:	mouse model of <i>P. berghei</i> malaria
	Dosage form:	10 mg/kg and 50 mg/kg once daily; dissolved in PBS in a total volume of 100 µl; intraperitoneally
	Applications:	In mouse model of <i>P. berghei</i> malaria, Doxycycline exhibited potent antimalarial activity at 50 mg/kg and activity was suboptimal at 10 mg/kg.
	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

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

[1] Draper MP, Bhatia B, Assefa H, Honeyman L, Garrity-Ryan LK, Verma AK, Gut J, Larson K, Donatelli J, Macone A, Klausner K, Leahy RG, Odinecs A, Ohemeng K, Rosenthal PJ, Nelson ML. In vitro and in vivo antimalarial efficacies of optimized tetracyclines. *Antimicrob Agents Chemother.* 2013 Jul;57(7):3131-6.

## 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.*



# APEx BIO Technology

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