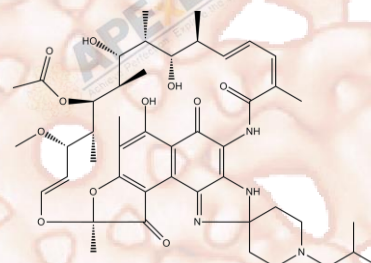


# Product Data Sheet

## Rifabutin

<b>Cat. No.:</b>	B2126
<b>CAS No.:</b>	72559-06-9
<b>Formula:</b>	C <sub>46</sub> H <sub>62</sub> N <sub>4</sub> O <sub>11</sub>
<b>M.Wt:</b>	847
<b>Synonyms:</b>	
<b>Target:</b>	Microbiology & Virology
<b>Pathway:</b>	Antibiotic
<b>Storage:</b>	Store at -20°C



## Solvent & Solubility

≥42.35 mg/mL in DMSO; insoluble in H<sub>2</sub>O; ≥47.5 mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	<b>Concentration</b>			
	<b>1 mM</b>	1.1806 mL	5.9032 mL	11.8064 mL
	<b>5 mM</b>	0.2361 mL	1.1806 mL	2.3613 mL
	<b>10 mM</b>	0.1181 mL	0.5903 mL	1.1806 mL

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

## Biological Activity

Shortsummary

anti-TB(tuberculosis) medicine

IC<sub>50</sub> & Target

In Vitro

### Cell Viability Assay

Preparation method:

The solubility of this compound in DMSO is > 42.4 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:

0.1 or 0.5 μM (MIC90s)

Applications:

Pretreating *M. abscessus* subspecies *abscessus* and *bolletii* with 0.5 μM

		Rifabutin, as well as <i>M. abscessus</i> subspecies <i>massiliense</i> with 0.1 $\mu$ M Rifabutin did not affect the MIC90s, which implied that <i>M. abscessus</i> did not have inducible Rifabutin resistance mechanisms. In addition, at the doses which are 2-fold of the MIC90s, Rifabutin showed similar or higher bactericidal activities than Clarithromycin.
In Vivo	<b>Animal experiment</b>	
	Animal models:	Mice inoculated with tachyzoites or cysts of <i>Toxoplasma gondii</i>
	Dosage form:	50, 100, 200, 300 or 400 mg/kg; p.o.; q.d., for 10 days
	Applications:	In mice inoculated with tachyzoites or cysts of <i>Toxoplasma gondii</i> , 300 mg/kg and 400 mg/kg Rifabutin protected all infected mice against death. At the doses of 100 mg/kg and 200 mg/kg, Rifabutin protected 80% and 10 ~ 40% of the infected mice against death, respectively. However, at the dose of 50 mg/kg, Rifabutin only induced a delay in time to death.
	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]. Aziz DB, Low JL, Wu ML, Gengenbacher M, Teo JWP, Dartois V, Dick T. Rifabutin Is Active against *Mycobacterium abscessus* Complex. *Antimicrob Agents Chemother*. 2017 May 24;61(6).
- [2]. Araujo FG, Slifer T, Remington JS. Rifabutin is active in murine models of toxoplasmosis. *Antimicrob Agents Chemother*. 1994 Mar;38(3):570-5.

## 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.*



**APExBIO Technology**

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