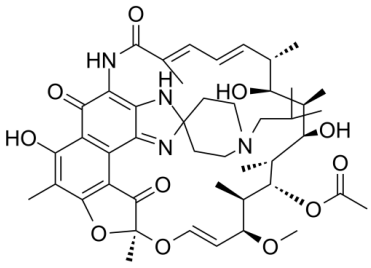
Data Sheet

Product Name:	Rifabutin
Cat. No.:	CS-0635
CAS No.:	72559-06-9
Molecular Formula:	C46H62N4O11
Molecular Weight:	847.00
Target:	Bacterial
Pathway:	Anti-infection
Solubility:	DMSO : ≥ 100 mg/mL (118.06 mM)



BIOLOGICAL ACTIVITY:

Rifabutin (Ansamycin) is a semisynthetic ansamycin antibiotic with potent antimycobacterial properties. Rifabutin inhibits DNA-dependent RNA polymerase. IC50 & Target: Antibacterial **In Vitro:** Rifabutin is primarily bactericidal antibiotic drug used to treat tuberculosis. Its effect on bacteria is based on the DNA-dependent RNA polymerase blocking drug rifamycin S., a semi-synthetic derivative. It is effective, for example, in highly resistant mycobacteria, Gram-positive bacteria (and some are effective against Gram-negative bacteria), but also against Mycobacterium tuberculosis, M. leprae, and M. avium intracellulare. Rifabutin is an antibiotic; antitumor. Rifabutin interferes with HSP-90 molecular chaperone, enhances ubiquitination and protein degradation, and inactivates bacterial RNA polymerase.

References:

[1]. Review Article: Rifabutin in the Treatment of Refractory Helicobacter pylori Infection J. P. Gisbert, X. Calvet Issue Alimentary Pharmacology & Therapeutics Volume 35, Issue 2, pages 209-221, January 2012

[2]. Vourvahis M, Davis J, Wang R, Layton G, Choo HW, Chong CL, Tawadrous M. Effect of rifampin and rifabutin on the pharmacokinetics of lersivirine and effect of lersivirine on the pharmacokinetics of rifabutin and 25-o-desacetyl-rifabutin in healthy subjects. Antimicrob Agents Chemother. 2012 Aug;56(8):4303-9.

[3]. Gisbert JP, Castro-Fernandez M, Perez-Aisa A, Cosme A, Molina-Infante J, Rodrigo L, Modolell I, Cabriada JL, Gisbert JL, Lamas E, Marcos E, Calvet X. Fourth-line rescue therapy with rifabutin in patients with three Helicobacter pylori eradication failures. Aliment Pharmacol Ther. 2012 Apr;35(8):941-7. doi: 10.1111/j.1365-2036.2012.05053.x.

[4]. Gisbert JP, Calvet X. Review article: rifabutin in the treatment of refractory Helicobacter pylori infection. Aliment Pharmacol Ther. 2012 Jan;35(2):209-21. doi: 10.1111/j.1365-2036.2011.04937.x.

[5]. Horne DJ, Spitters C, Narita M. Experience with rifabutin replacing rifampin in the treatment of tuberculosis. Int J Tuberc Lung Dis. 2011 Nov;15(11):1485-9, i.

CAIndexNames:

Spiro[9,4-(epoxypentadeca[1,11,13]trienimino)-2H-furo[2',3':7,8]naphth[1,2-d]imidazole-2,4'-piperidine]-5,10,26(3H,9H)-trione, 16-(acetyloxy)-6,18,20-trihydroxy-14-methoxy-7,9,15,17,19,21,25-heptamethyl-1'-(2-methylpropyl)-, (9S,12E,14S,15R,16S,17R,18R,19R,20S,21S,22E,24Z)-

SMILES:

C[C@@]1(O2)O/C=C/[C@@H]([C@H]([C@H]([C@H](C)[C@H](O)[C@H](C)[C@H]([C@H](/C=C/C=C(C(NC(C3=O)=C4NC5(CCN(CC(C)C)CC5)N=C4C6=C3C(O)

=C(C)C2=C6C1=O)=O)\C)C)O)OC(C)=O)C)OC

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 732-484-9848 Fax: 888-484-5008 E-mail: sales@ChemScene.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA