

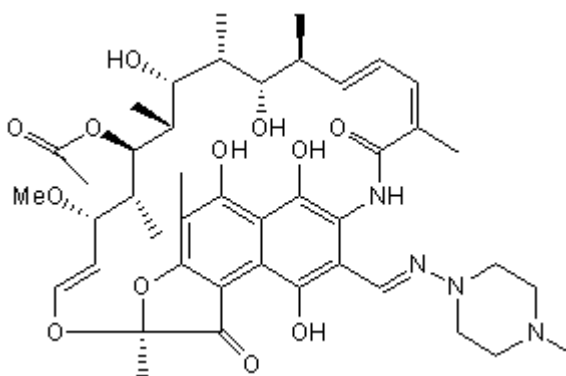
Certificate of Analysis

Product Name: Rifampicin
CAS Number: 13292-46-1
IUPAC Name: 3-[[[(4-Methyl-1-piperazinyl)imino]methyl]-rifamycin

Catalog No.: 4121 **Batch No.:** 1
EC Number: 236-312-0

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₄₃H₅₈N₄O₁₂
Batch Molecular Weight: 822.94
Physical Appearance: red/orange solid
Solubility: DMSO to 100 mM
Storage: Store at -20°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 95.1% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure
Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	62.76	7.1	6.81
Found	64.42	7.13	6.85

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

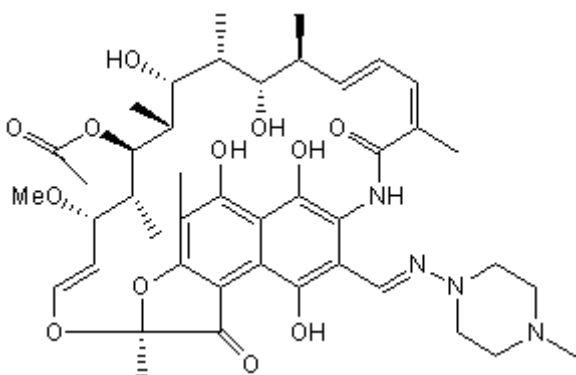
Antibiotic; inhibits bacterial RNA polymerase. Prototypical activator of the pregnane X receptor (PXR).

Physical and Chemical Properties:

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 Batch Molecular Weight: 822.94
 Physical Appearance: red/orange solid

Minimum Purity: >95%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Wehrli (1983) Rifampin: mechanisms of action and resistance. *Rev.Infect.Dis.* **5** S407. PMID: 6356275.

Moore et al (2000) Orphan nuclear receptors constitutive androstane receptor and pregnane X receptor share xenobiotic and steroid ligands. *J.Biol.Chem.* **275** 15122. PMID: 10748001.

Artsimovitch et al (2005) Allosteric modulation of the RNA polymerase catalytic reaction is an essential component of transcription control by rifamycins. *Cell* **122** 351. PMID: 16096056.

Hu et al (2010) Pregnane X receptor is SUMOylated to repress the inflammatory response. *J.Pharmacol.Exp.Ther.* **335** 342. PMID: 20719936.

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