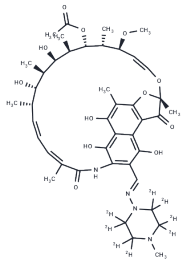
# Data Sheet (Cat.No.TMIH-0496)

TargetMol

## Rifampicin-D8

### Chemical Properties



CAS No. :

Formula: C43H58N4O12

Molecular Weight: 830.99

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

| | |
|---|---|
| Description | Rifampicin-D8 is a deuterium-labelled compound of rifampicin, which can be used for isotope tracing. Rifampicin (T0681) is a broad-spectrum antibiotic that primarily exerts its antibacterial activity by inhibiting bacterial DNA-dependent RNA polymerase. |
| Targets(IC50) | Anti-infection,Antibacterial,Antibiotic,Influenza Virus |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 1.2034 mL | 6.0169 mL | 12.0338 mL |
| 5 mM | 0.2407 mL | 1.2034 mL | 2.4068 mL |
| 10 mM | 0.1203 mL | 0.6017 mL | 1.2034 mL |
| 50 mM | 0.0241 mL | 0.1203 mL | 0.2407 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.
Piriou A, et al. Fatty liver induced by high doses of rifampicin in the rat: possible relation with an inhibition of RNA polymerases in eukariotic cells. Arch Toxicol Suppl. 1979;(2):333-7.
Yu J, et al. Monitoring in vivo fitness of rifampicin-resistant Staphylococcus aureus mutants in a mouse biofilm infection model. J Antimicrob Chemother. 2005 Apr;55(4):528-34. Epub 2005 Mar 2.
Erokhina MV, et al. [In vitro development of rifampicin resistance in the epithelial cells]. Probl Tuberk Bolezn Legk. 2006;(8):58-61.
Hamzehei M, et al. Inhibition of influenza A virus replication by rifampicin and selenocystamine. J Med Virol. 1980; 6(2):169-74.



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