



LKT Laboratories, Inc.

Rifampicin

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Product Information

Product ID R3220

CAS No. 13292-46-1

Chemical Name 3-[[[4-Methyl-1-piperazinyl]imino]methyl]rifamycin

Synonym Rifampin, Abrifam, Eremfat, Rifa, Rifaldin, Rifoldin

Formula C₄₃H₅₈N₄O₁₂

Formula Wt. 822.94

Melting Point 183-188 °C (dec)

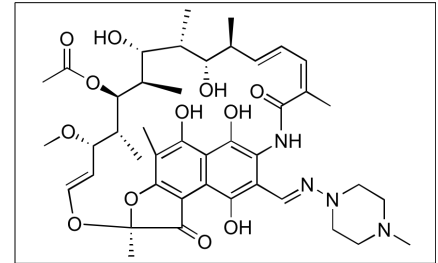
Purity ≥98%

Solubility Soluble in DMSO ethyl acetate, methanol and THF. Slightly soluble in water, acetone, and carbon tetrachloride, chloroform. Water pH 4.2 to 5.5

Store Temp Ambient

Ship Temp Ambient

Description Rifampicin is an ansamycin antibiotic that exhibits antibacterial, neuroprotective, and anti-inflammatory activities. Rifampicin inhibits bacterial DNA-dependent RNA polymerase, preventing formation of the initiation complex in transcription and suppressing RNA synthesis; it is active against *Mycobacterium* and is clinically used to treat tuberculosis. In microglia, rifampicin decreases expression of the 26S protease regulatory subunit (MSS1), suppressing inflammatory cytokine release. Additionally, rifampicin upregulates expression of LRP1 and P-gp at the blood brain barrier, increasing clearance of amyloid-β (Aβ) and displaying potential efficacy in the treatment of Alzheimer's disease.



Bulk quantities available upon request

Product ID	Size
R3220	1 g
R3220	5 g
R3220	25 g

References Sharma SK, Sharma A, Kadiravan T, et al. Rifamycins (rifampicin, rifabutin and rifapentine) compared to isoniazid for preventing tuberculosis in HIV-negative people at risk of active TB. *Cochrane Database Syst Rev.* 2013 Jul 5;7:CD007545. PMID: 23828580.

Bi W, Jing X, Zhu L, et al. Inhibition of 26S protease regulatory subunit 7 (MSS1) suppresses neuroinflammation. *PLoS One.* 2012;7(5):e36142. PMID: 22629310.

Qosa H, Abuznait AH, Hill RA, et al. Enhanced brain amyloid-β clearance by rifampicin and caffeine as a possible protective mechanism against Alzheimer's disease. *J Alzheimers Dis.* 2012;31(1):151-65. PMID: 22504320.

Campbell EA, Korzheva N, Mustaev A, et al. Structural mechanism for rifampicin inhibition of bacterial rna polymerase. *Cell.* 2001 Mar 23;104(6):901-12. PMID: 11290327.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.