## WELGENE

# Rifampicin Solution (Rifamycin AMP)

Contains 25 mg/mL rifampicin in methanol DNase, RNase and protease – none detected

#### Catalog Number ML 003-05

Storage Temperature -5~-20°C

#### **Product Description**

Rifampicin inactivates bacterial RNA polymerase (RNAP) at about 0.01-02  $\mu$ g/mL (50% effective dose). Rifampicin has activity against a wide range of microorganisms such as mycobacteria including Mycobacterium tuberculosis9 and M. leprae.12 Rifampicin is highly active against Gram-positive bacteria, such as staphylococci, streptococci, pneumococci but is less active against Gram-negative organisms. Rifampicin inhibits initiation of RNA synthesis by binding to  $\beta$ -subunit of RNA polymerase.

**ML 003-05** contains 25 mg/mL rifampicin in methanol. Working concentration is 150 μg/mL.

#### Storage/Stability

Rifampicin solution should be stored at -5~-20°C. Deterioration of the liquid may be recognized by (1) precipitate or particulate matter throughout the solution, (2) cloudy appearance, (3) color change, and/or (4) pH change. Product label bears expiration date.

#### Precautions

For In Vitro Use Only

Product Profile	
Appearance	Dark orange to brown, Clear solution
DNase, RNase and protease	None detected
Sterility	Sterilized by 0.2 µm filtration system. Sterility tests are performed in accordance with protocols described in USP.

Molecular Weight 823 g/mole

### Molecular Formula

 $C_{43}H_{58}N_4O_{12}\\$ 

#### **Molecular Structure**



#### References

Gallo, G.G. and Radaelli, P., Anal. Profiles of Drug Subs., K. Florey, ed. Academic Press, NY, 5, 467, 1976. Maggi, N. et al., Chemotherapia 11, 285, 1966. Clarke's Isolation and Identification of Drugs, 2nd ed., eds. Moffat, A.C. et al., p 960, The Pharmaceutical Press, London, 1986. Martindale, The Extra Pharmacopoeia, 31st ed., p. 268, 1996. Karlson, A.G. and Ulrich, J.A., Appl. Microbiol., 18, 692, 1969. Pallanza, R. et al., Arzneimittelforschung, 17, 529, 1967 Wehrli, W., Rev. of Infect. Dis., 5, Supplement 3, S407, July-August 1983 Hartmann, G. et al., *Biochim. Biophys.* Acta 145, 843, 1967. Lester, W., Annu. Rev. of Microbiol., 26, 85, 1972. Dans, P.E. et al., Am. J. Med. Sci., 259, 120, 1970. Arioli, V. et al., Arzneimittelforschung, 17, 523, 1967. Binda, G. et al., Arzneimittelforschung, 21, 1907, 1971 (review). Taniguchi, H. et al., FEMS Microbiol. Lett. 144, 103, 1996. Wehrli, W. et al., Proc. Natl Acad. Sci. USA 61, 668, 1968. Goodman and Gilman's The Pharmacological Basis of Therapeutics, p. 1149, 8th ed., eds. Gilman, A.G. et al., Pergamon Press, 1990. Severinov, K. et al., J. Biol. Chem. 268, 14820, 1993. Wehrli, W. et al., Biochim. Biophys. Acta, 157, 215, 1968. Data for Biochemical Research, 274, 3rd ed. eds Dawson, R.M.C. et al. Oxford University Press, Oxford, England, 1986. Surzycki, S.J., Proc. Natl. Acad. Sci. USA 63, 1327, 1969.