



SIGMA-ALDRICH

3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

Product Information

Novobiocin sodium salt

Product Number **N1628**

Storage Temperature 2-8 °C

Product Description

Molecular Formula: $C_{31}H_{35}N_2NaO_{11}$

Molecular Weight: 634.6

CAS Number: 1476-53-5

Melting Point: 220 °C with decomposition¹

λ_{max} : 307 nm¹

Extinction Coefficient: $E^{1\%} = 600$ (0.1 M NaOH)

Specific Rotation: -38.0° (2.5 g/100 ml ethanol at 24 °C for the free acid)¹

Novobiocin is an antibiotic produced by *Streptomyces niveus*.^{2,3} Novobiocin acts on gram-positive bacteria by inhibition of bacterial DNA gyrase.⁴ The minimum inhibitory concentration (MIC) toward gram-positive bacteria is 0.1 to 4 μ g/ml.

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Storage/Stability

An aqueous solution of the sodium salt at 100 mg/ml has a pH of 7.5 and a half-life of approximately 30 days at 25 °C and several months at 4 °C.¹ Aqueous solutions of novobiocin can be stored in frozen aliquots for up to 6 months without any decrease in potency.

References

1. The Merck Index, 11th ed., Entry# 6641.
2. Brock, in Antibiotics, **1**, Gottlieb, D., and Shaw, P. D., eds., Springer-Verlag (New York, NY: 1967), p. 651-665.
3. Ryan, in Antibiotics, **5-pt. 1**, Hahn, F. E., ed., Springer-Verlag (New York, NY: 1979), p. 214-234.
4. Cozzarelli, N.R., Science, **207**, 953-60 (1980).

ALF/RXR 5/06

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.