



## Product Information

Product ID N5986

CAS No. 1476-53-5

Chemical Name

Synonym

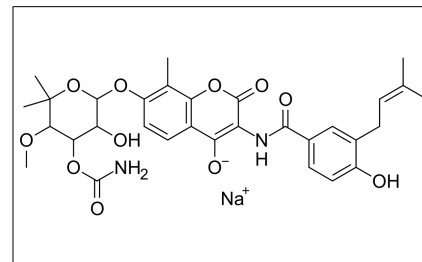
Formula  $C_{31}H_{35}N_2NaO_{11}$

Formula Wt. 634.61

Melting Point

Purity  $\geq 98\%$

Solubility 50mg/ml in water



**Bulk quantities available upon request**

Product ID	Size
N5986	1 g
N5986	5 g

Store Temp Ambient

Ship Temp Ambient

**Description** Novobiocin is an aminocoumarin antibiotic that inhibits the ATPase activity of the B subunit of bacterial DNA gyrase. Novobiocin is most often used in the treatment of methicillin-resistant *Staphylococcus aureus* (MRSA) infections. In addition to its antibacterial activity, novobiocin also displays anticancer chemotherapeutic and anti-angiogenic properties. Novobiocin inhibits HIF-1 $\alpha$  binding to transcriptional coactivator p300/CBP in tumor models and analogs of this compound are in development as HSP90 inhibitors.

**References** Gunaherath GM, Marron MT, Wijeratne EM, et al. Synthesis and biological evaluation of novobiocin analogues as potential heat shock protein 90 inhibitors. *Bioorg Med Chem*. 2013 Sep 1;21(17):5118-29. PMID: 23859777.

Wu D, Zhang R, Zhao R, et al. A novel function of novobiocin: disrupting the interaction of HIF 1 $\alpha$  and p300/CBP through direct binding to the HIF1 $\alpha$  C-terminal activation domain. *PLoS One*. 2013 May 6;8(5):e62014. PMID: 23671581.

Walsh TJ, Standiford HC, Reboli AC, et al. Randomized Double-Blinded Trial of Rifampin with Either Novobiocin or Trimethoprim-Sulfamethoxazole against Methicillin-Resistant *Staphylococcus aureus* Colonization: Prevention of Antimicrobial Resistance and Effect of Host Factors on Outcome. *Antimicrobial agents and chemotherapy* 1993 Jun;37(6):1334-42. PMID: [8328783](https://pubmed.ncbi.nlm.nih.gov/8328783/).

Maxwell A. The interaction between coumarin drugs and DNA gyrase. *Mol Microbiol* 1993;9(4):681-6. PMID: 8231802.

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