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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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Novobiocin

Chemical Properties

CAS No. : 303-81-1

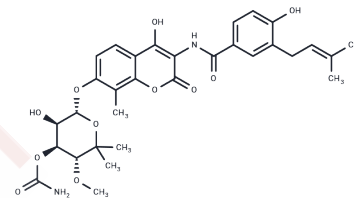
Formula: C₃₁H₃₆N₂O₁₁

Molecular Weight: 612.62

Appearance: no data available

Storage: store at low temperature

Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Novobiocin is an orally active and potent antibiotic. Novobiocin is a DNA gyrase inhibitor and heat shock protein 90 (Hsp90) antagonist with inhibitory effects on gyrase and Hsp90. Novobiocin has anti-positive activity and can be used to study highly resistant pneumococcal infections.
Targets(IC50)	Apoptosis, Virus Protease, HSP, DNA gyrase, Antibacterial, Antibiotic
In vitro	Novobiocin (1 mM) competitively hinders the binding of ATP to gyrase B, disrupting nucleotide binding, and impairs the interaction between the co-chaperones Hsc70 and p23 with Hsp90.[1] Novobiocin (200 μM; 24 h) results in the inhibition of the repair rate of DNA interstrand cross-links induced by both cisplatin (cis-DDP) and BCNU. This is accompanied by a corresponding reduction in the clonogenic survival of human glioblastoma multiforme cells.[2] Novobiocin (0.3 mM; 48 hours) triggers caspase-3/7 enzyme-dependent apoptosis assays, resulting in an approximate three- to fivefold increase in the number of apoptotic cells in K562, HL60, and Muts-2.[5]
In vivo	Novobiocin (25, 50, 100, 200 mg/kg; s.c.; 4 times at 1, 5, 24, and 48 h after infection; Adult female Swiss mice (30g) with sepsis induced by the penicillin-susceptible strain (AR33118)) exhibits anti-infection activity in mice infected with amoxicillin-resistant <i>Streptococcus pneumoniae</i> . [3]

Solubility Information

Solubility	DMSO: 55 mg/mL (89.78 mM), (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.6323 mL	8.1617 mL	16.3233 mL
5 mM	0.3265 mL	1.6323 mL	3.2647 mL
10 mM	0.1632 mL	0.8162 mL	1.6323 mL
50 mM	0.0326 mL	0.1632 mL	0.3265 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.

Reference

Marcu MG, et al. The heat shock protein 90 antagonist novobiocin interacts with a previously unrecognized ATP-binding domain in the carboxyl terminus of the chaperone. J Biol Chem. 2000 Nov 24;275(47):37181-6.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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