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N8028 ► Sigma-Aldrich.

Nikkomycin Z from *Streptomyces tendae*

★★★★★ (0)

≥90% (HPLC)

Empirical Formula (Hill Notation):

C₂₀H₂₅N₅O₁₀

Numéro CAS:

59456-70-1

Poids moléculaire:

495.44

Numéro MDL:

MFC00869648

ID de substance PubChem:

24897849

NACRES:

NA.85

Référence	Conditionnement	Disponibilité	Prix	Quantité
N8028-5MG	5 MG	Only 4 left in stock (more on the way) Détails...	389,00 €	- +

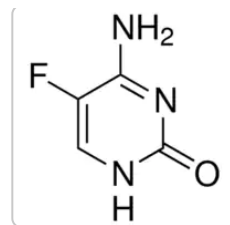
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PRODUITS RECOMMANDÉS



Millipore

529313**Polyoxin D, *Streptomyces cacaoi* var. *asoensis* - CAS 22976-86-9 - Calbiochem**Specific inhibitor of fungal chitin synthetase (K_i = 6 μM).[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

F7129**5-Fluorocytosine**

nucleoside analog

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PROPRIÉTÉS

Niveau de qualité	200
Essai/Dosage	≥90% (HPLC)
Forme	powder
Solubilité	H ₂ O: soluble 5 mg/mL
Spectre d'activité de l'antibiotique	fungi
Mode d'action	cell wall synthesis interferes enzyme inhibits
Temp. de stockage	2-8°C
SMILES string	<chem>C[C@@H]([C@H](N)C(=O)N[C@H]([C@H]1O[C@H]([C@H](O)[C@@H]1O)N2C=CC(=O)NC2=O)C(O)=O)[C@H](O)c3ccc(O)cn3</chem>

InChI 1S/C20H25N5O10/c1-7(13(28)9-3-2-8(26)6-22-9)11(21)17(31)24-12(19(32)33)16-14(29)15(30)18(35-16)25-5-4-10(27)23-20(25)34/h2-7,11-16,18,26,28-30H,21H2,1H3,(H,24,31)(H,32,33)(H,23,27,34)/t7-,11-,12+,13-,14-,15+,16+,18+/m0/s1

InChI key WWJFFVUVFNBJSN-JKEIIPFCSA-N

Catégories apparentées

[Antibiotics](#)

DESCRIPTION

Description générale

Chemical structure: peptidyl nucleoside

Application

Nikkomycin Z is used as a selective competitive inhibitor of chitin synthetase 3 in studies on fungal cell wall development. It is a potential treatment for human *Encephalitozoon hellem*, a microsporidian species and is used to study the changes of chitin and β -glucan under Nikkomycin Z exposure.

Conditionnement

5 mg in glass bottle

Actions biochimiques/physiologiques

Nikkomycin Z inhibits chitin synthase from converting UDP-GlcNAc into cell wall chitin due to its structural resemblance to UDP-N-acetylglucosamine. Nikkomycin Z has potent antifungal, insecticidal and acaridical activity.

Autres remarques

Keep container tightly closed in a dry and well-ventilated place.Keep in a dry place.

INFORMATIONS SUR LA SÉCURITÉ

Code de la classe de stockage

11 - Combustible Solids

WGK

WGK 3

Équipement de protection individuelle

dust mask type N95 (US),
Eyeshields, Gloves

DOCUMENTATION

Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COA)

Rechercher

Certificat d'origine

Saisir un numéro de lot pour rechercher un certificat d'origine (COO).

Numéro de lot

Comment saisir un numéro de lot (COO)

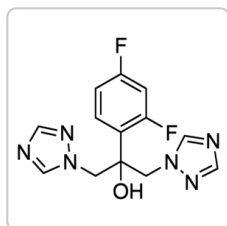
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Structure Search

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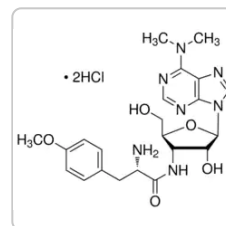
Sigma-Aldrich

F8929

Fluconazole

≥98% (HPLC), powder

Consulter le prix et la disponibilité



Sigma-Aldrich

P9620

Puromycin dihydrochloride

Ready Made Solution, from *Streptomyces alboniger*,
10 mg/mL in H₂O

Consulter le prix et la disponibilité

ARTICLES REVUS PAR DES PAIRS

Increase in chitin as an essential response to defects in assembly of cell wall polymers in the *ggp1delta* mutant of *Saccharomyces cerevisiae*.

L Popolo et al.*Journal of bacteriology*, 179(2), 463-469 (1997-01-01)

The GGP1/GAS1 gene codes for a glycosylphosphatidylinositol-anchored plasma membrane glycoprotein of *Saccharomyces cerevisiae*. The ggp1delta mutant shows morphogenetic defects which suggest changes in the cell wall matrix. In this work, we have investigated cell wall glucan levels and the increase

Chitin biosynthesis in *Candida albicans* grown in vitro and in vivo and its inhibition by nikkomycin Z.

T Chapman et al.*Antimicrobial agents and chemotherapy*, 36(9), 1909-1914 (1992-09-01)

An N-acetyl-D-[14C]glucosamine radiolabel incorporation assay has been used to monitor chitin biosynthesis in whole cells of *Candida albicans* both in vitro and in vivo in two different mouse infection models, one using the peritoneal cavity as a chamber in which

In vitro efficacy of nikkomycin Z against the human isolate of the microsporidian species *Encephalitozoon hellem*.

E Bigliardi et al.*Antimicrobial agents and chemotherapy*, 44(11), 3012-3016 (2000-10-19)

Since 1985 microsporidia have been recognized as a cause of emerging infections in humans, mainly in immunocompromised human immunodeficiency virus-positive subjects. As chitin is a basic component of the microsporidian infective stage, the spore, we evaluated in vitro the susceptibility

Cryptic phosphorylation in nucleoside natural product biosynthesis.

Matthew M Draelos et al.*Nature chemical biology*, 17(2), 213-221 (2020-12-02)

Kinases are annotated in many nucleoside biosynthetic gene clusters but generally are considered responsible only for self-resistance. Here, we report an unexpected 2'-phosphorylation of nucleoside biosynthetic intermediates in the nikkomycin and polyoxin pathways. This phosphorylation is a unique cryptic modification

Structure-activity relationships of the nikkomycins.

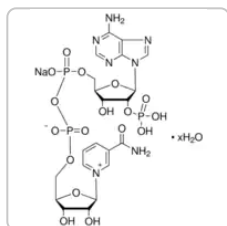
H Decker et al.*Journal of general microbiology*, 137(8), 1805-1813 (1991-08-01)

The structure-activity relationships of different nikkomycins were studied to evaluate the structural requirements for a potent chitin synthase inhibitor. We investigated the transport of the nikkomycins via the peptide transport system of the yeast *Yarrowia lipolytica* and determined the

kinetic

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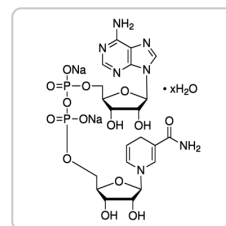
PRODUITS CONSULTÉS RÉCEMMENT



Sigma-Aldrich

N8035

β -Nicotinamide adenine dinucleotide phosphate sodium salt
pkg of 5 mg (per vial)

[Consulter le prix et la disponibilité](#)

Sigma-Aldrich

N8129

β -Nicotinamide adenine dinucleotide, reduced disodium salt hydrate
 $\geq 97\%$ (HPLC)

[Consulter le prix et la disponibilité](#)

Évaluations

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Questions

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