

Name: ***Actinomadura verrucosospora***

Authors: Nonomura and Ohara 1971

Status: Approved Lists

Literature: Int. J. Syst. Bacteriol. 30:243 (AL)

Risk group: 1 (German classification)

Type strain: ATCC 27299, DSM 43358, DSM 43550,
IMET 9588

Author(s) Nonomura, H., Ohara, Y.

Title Distribution of actinomycetes in soil. XI. Some new species of
the genus *Actinomadura* Lechevalier et. al.

Journal J. Ferment. Technol.

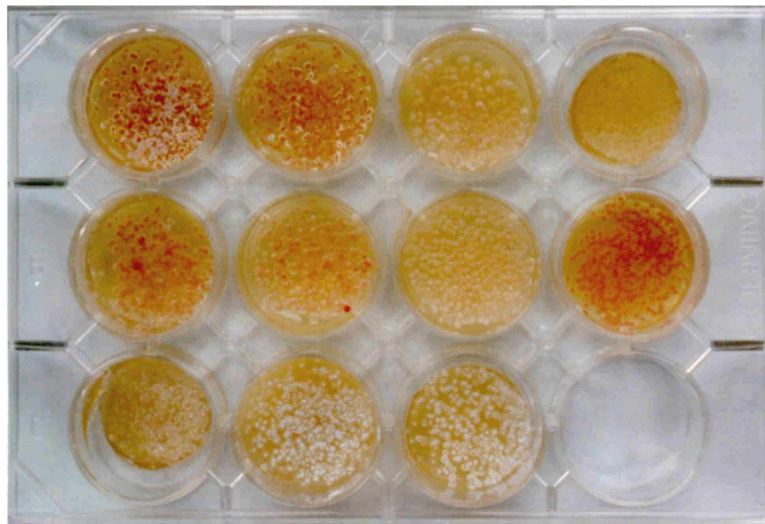
Volume 49

Page(s) 904-912

Year 1971

Fatty acid pattern:

14 : 0	3,0
15 : 0 Iso	3,0
15 : 0 Anteiso	2,0
15 : 0	2,0
16 : 0 Iso	7,0
16 : 1 cis 9	3,0
16 : 0	32,0
17 : 0 Iso	2,0
17 : 0 Anteiso	2,0
17 : 0	2,0
18 : 1 cis 9	8,0
18 : 0	13,0

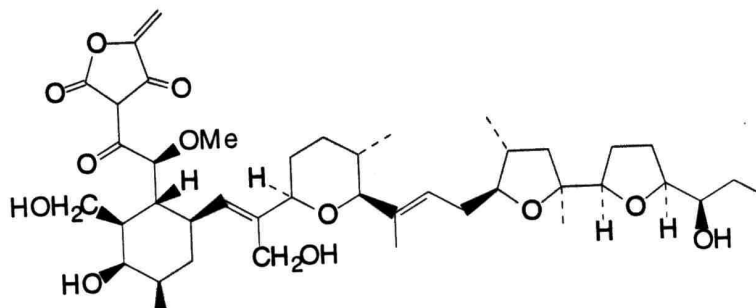


Actinomadura verrucosospora

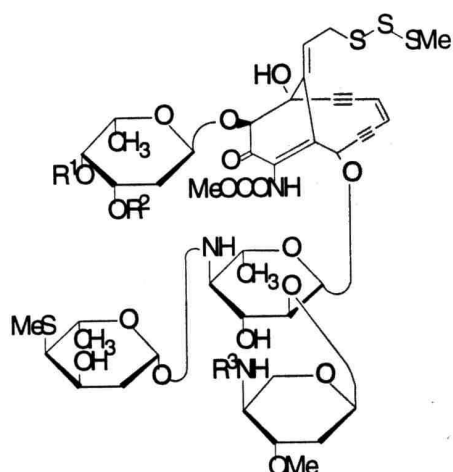
Microplate for carbon utilization

Secondary metabolites of *Actinomadura verrucosospora*

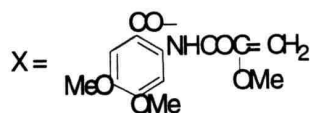
SF 2487, polyether antibiotic, active against gram-positive bacteria and viruses, anticoccidial growth promotor



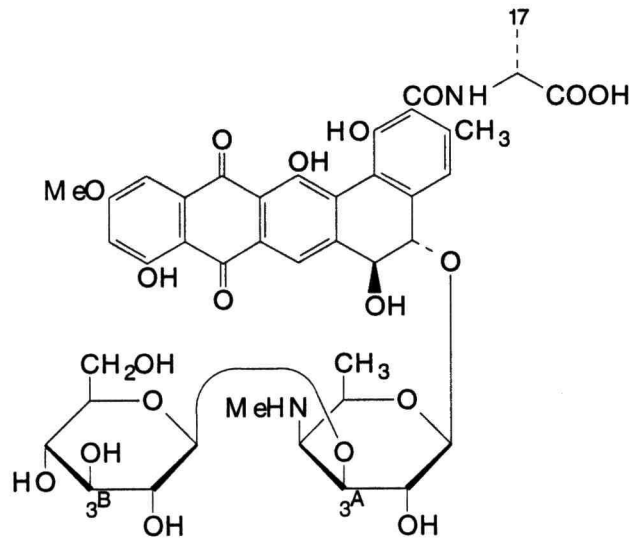
Esperamicin, enediyne antibiotic, potent antitumor agent



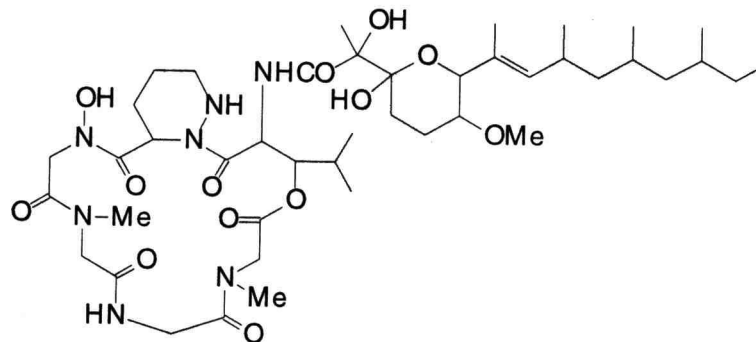
Esperamicin	A ₁	R ¹ = H, R ² = X, R ³ = CH(CH ₃) ₂
	A _b	R ¹ = H, R ² = X, R ³ = Et
	A _{1c}	R ¹ = H, R ² = X, R ³ = Me
	A ₂	R ¹ = X, R ² = H, R ³ = CH(CH ₃) ₂
	A _{2c}	R ¹ = X, R ² = H, R ³ = Me



Pradimicin L, anthracycline antibiotic, antifungal agent



Verucopeptin, cyclic depsipeptide antibiotic, antitumor agent



Genus: *Actinomadura*

FH 2086

Species: *verrucosospora*

Numbers in other collections: DSM 43358

Morphology:

	G	R
<u>ISP 2</u>	good	colourless
	A	SP
	white	none
	G	R
<u>ISP 3</u>	good	colourless
	A	SP
	white	none
	G	R
<u>ISP 4</u>	good	colourless
	A	SP
	white	none
	G	R
<u>ISP 5</u>	good	antique pink
	A	SP
	none	none
	G	R
<u>ISP 6</u>	good	antique pink
	A	SP
	none	none
	G	R
<u>ISP 7</u>	good	antique pink
	A	SP
	none	none

Spore chains: Sp

Spore surface: warty

Sporangia:

Fragmentation:

Melanoid pigment: - - - -

NaCl resistance: 2,5 %

Lysozyme resistance:

pH: Value- Optimum-

Temperature : Value- Optimum- 28 °C

Carbon utilization:

Glu	Ara	Suc	Xyl	Ino	Man	Fru	Rha	Raf	Cel
+	+	(+)	-	+	+	(+)	+	-	-

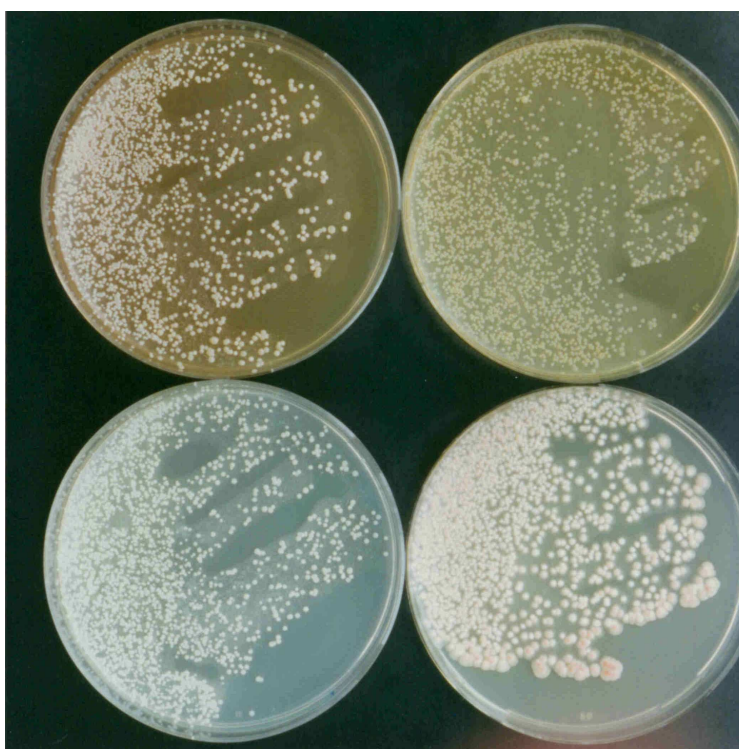
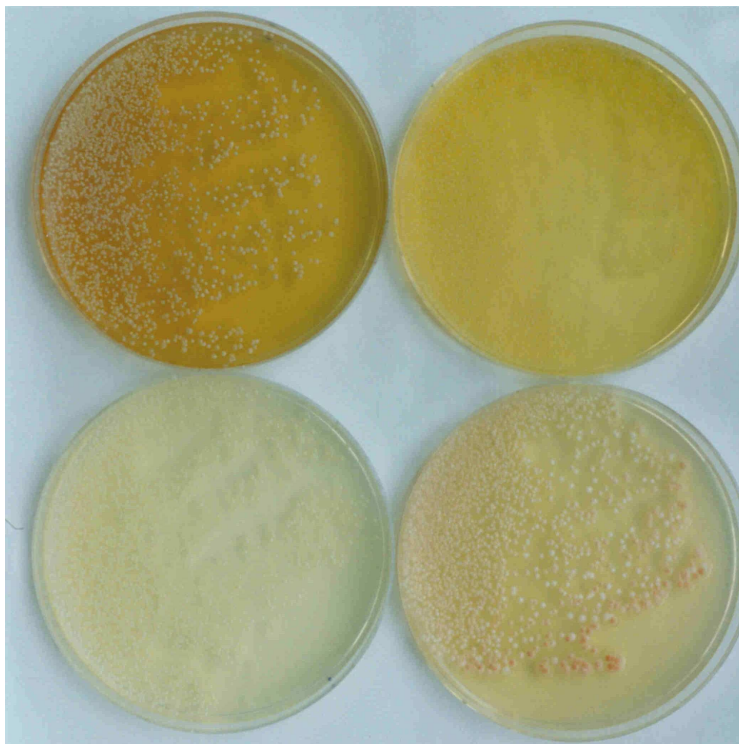
Enzymes:

Gel	Cit	Ure	Arg	Onp	Trp	Lys	Odc	VP	Ind	H2S
+	+	-	(+)	-	-	-	-	+	-	-
2+	3+	4+	5+	6+	7+	8+	9+	10+	11+	12+
13-	14-	15-	16+	17+	18+	19-	20-			



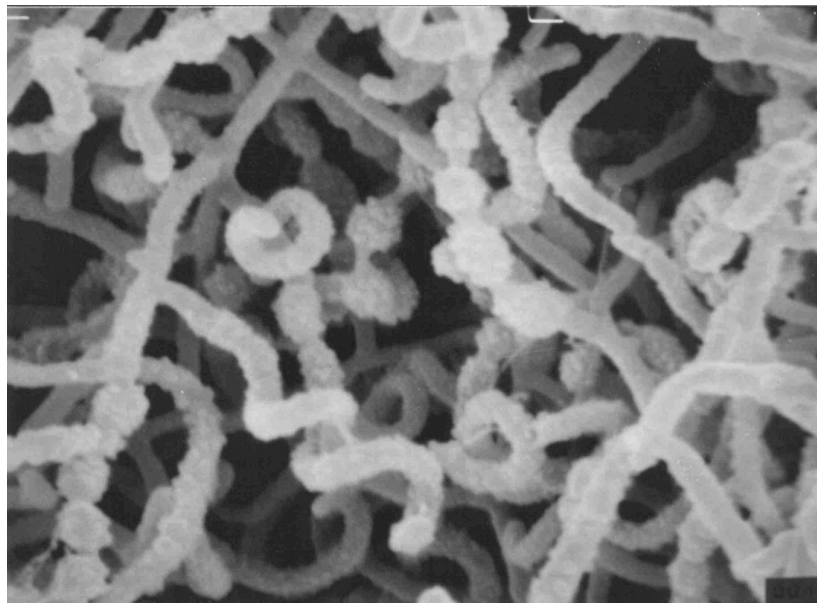
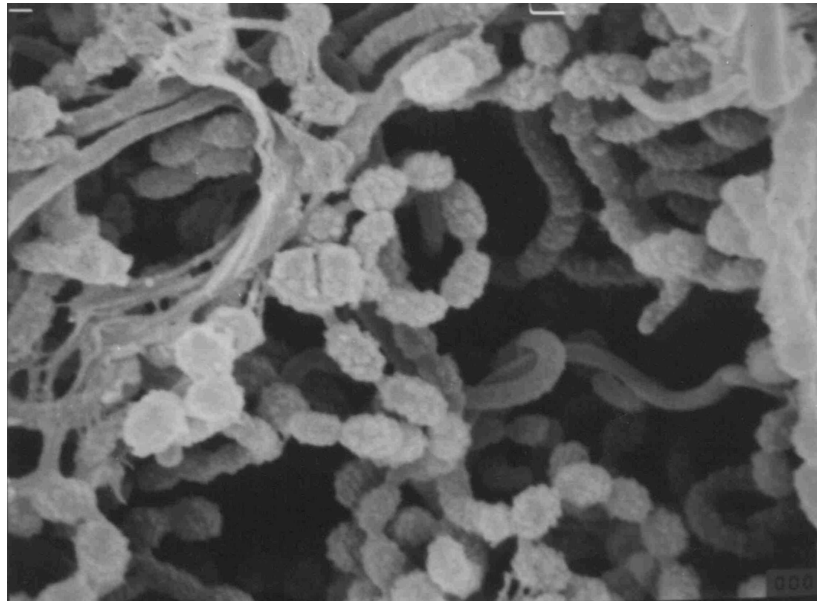
Actinomadura verrucosospora

A and B – Agar plates medium 5265, 5315, 5317, 5323



Actinomadura verrucosospora

C and D – Agar plates medium 5318, 5322, 5337 with and without tyrosine



Actinomadura verrucosospore

Spore chain morphology and spore surface in SEM
E and F x 7.500