

Genus *Brevibacterium*
Species *iodinum*
Subspecies
Author Collins et al. 1981

Reclassification
Status sp. nov.

Type species DSM 20626, IMET 10995

Hazard group 1

Author(s) Collins, M. D., Jones, D., Keddie, R. M., Sneath, P. H. A.
Title Reclassification of *Chromobacterium iodium* (Davis) in a redefined genus *Brevibacterium* (Breed) as *Brevibacterium iodium* nom. rev., comb. nov.
Journal J. Gen. Microbiol.
Volume 120
Page(s) 1-10
Year 1980

Fatty acid pattern

15 : 0	Iso	1,5
15 : 0	Anteiso	53,0
16 : 0	Iso	3,5
16 : 0		0,5
17 : 0	Anteiso	39,5
18 : 0		1,0
19 : 1	Trans 7	1,0

Genus: *Brevibacterium*

FH 2793

Species: *iodinum*

Numbers in other collections: DSM 20626

Morphology:

<u>ISP 2</u>	G	R
	good	chocolate brown
	A	SP
<u>ISP 3</u>	none	none
	G	R
	good	mahogany brown
<u>ISP 4</u>	A	SP
	none	none
	G	R
<u>ISP 5</u>	good	reed green
	A	SP
	none	yes
<u>ISP 6</u>	G	R
	good	reed green
	A	SP
<u>ISP 7</u>	none	none
	G	R
	good	black olive
	A	SP
	none	none

NaCl resistance: 10.0%

Temperature: Value- °C Optimum- 28°C

Carbon utilization:

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

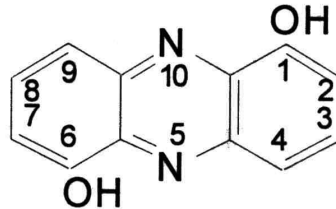
Enzymes:

Api 20E	Gel	Cit	Ure	Arg	Onp	Trp	Lys	Odc	VP	Ind	H2S	
-	-	-	-	-	-	-	-	-	-	-	-	
ApiZym	2	3	4	5	6	7	8	9	10	11	12	
	+	+	+	-	+	-	-	-	-	-	v	
	13	14	15	16	17	18	19	20				
	-	-	-	-	-	-	-	-				
ApiCoryne		Nit	Pyz	Pyr	Pal	βGur	βGal	αGlu	βNag	Esc	Ure	Gel
	+	+	+	-	+	-	-	-	-	-	(+)	
	Glu	Rib	Xyl	Man	Mal	Lac	Sac	Glyg				
	-	-	-	-	-	-	-	-				

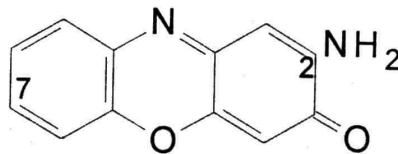
Comments:

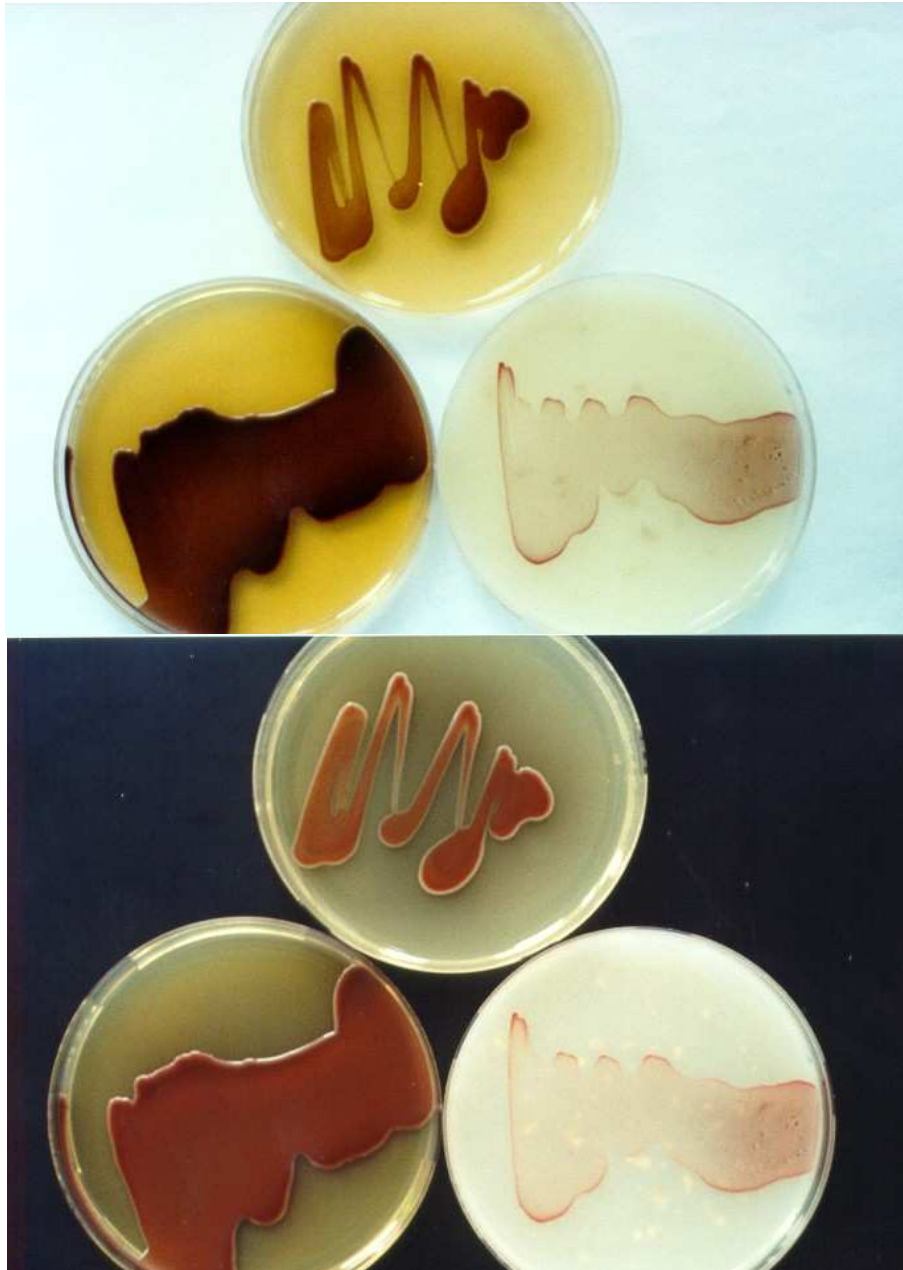
Secondary metabolites of *Brevibacterium iodinum*:

- Crystalloiodinine (1,6 – Phenazinediol) a golden yellow compound which is active against gram-positive bacteria and fungi.



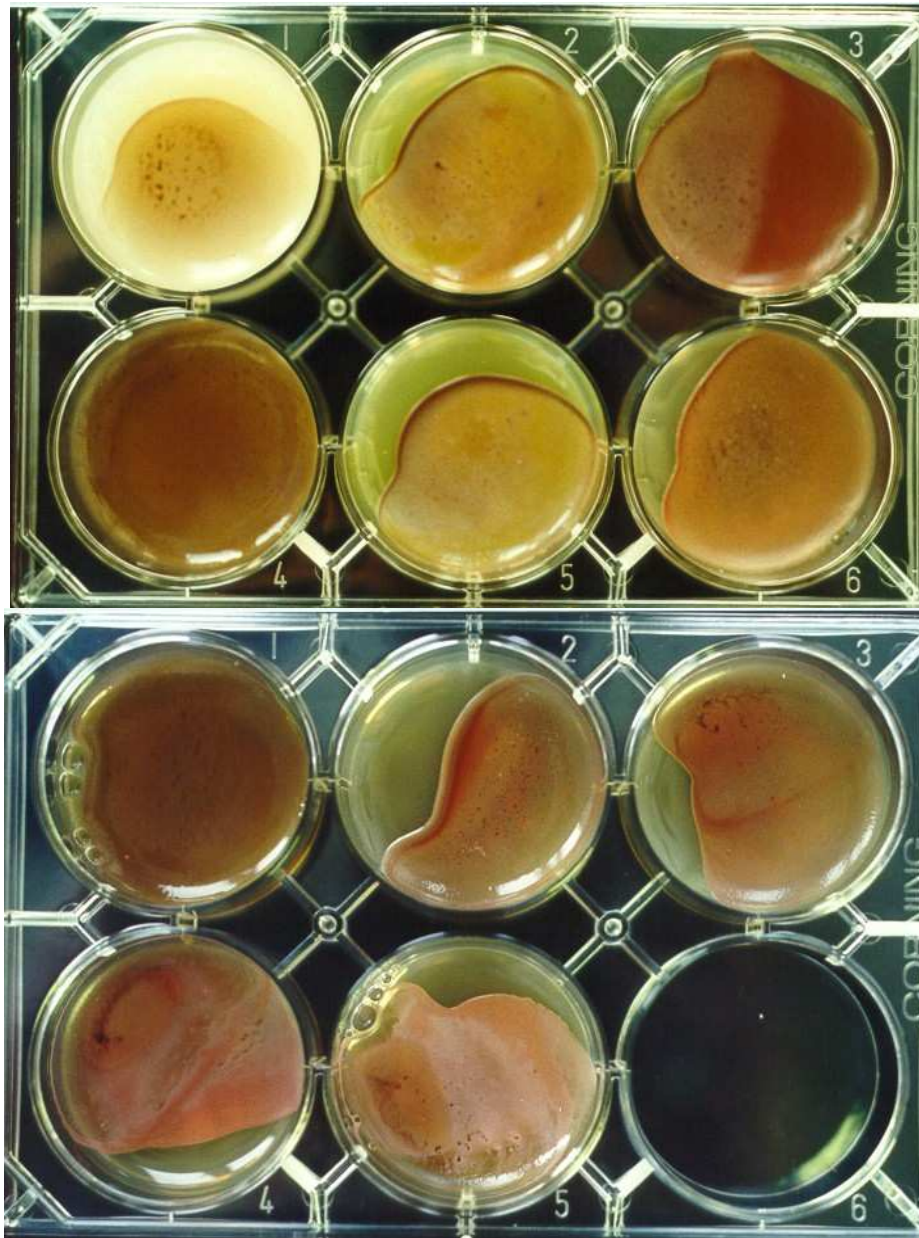
- Questiomycin (2-Amino-3H-phenoxazin-3-one) a brown red compound which is active against gram positive bacteria, mycobacteria *Candida albicans* and shows antitumor activity. The compound is also a phytotoxin.





Brevibacterium iodinum

A and B – Agar plates medium 5006, 5265 and 5315



Brevibacterium iodinum

C – Microplate with ISP- and melanin media

D – Microplate with sodium chloride tolerance