Supplementary Information

Bioactive compound from *Micrococcus luteus* associated with *Datura stramonium* L. seeds

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Figure S1 Isolated endophytic bacterial colonies

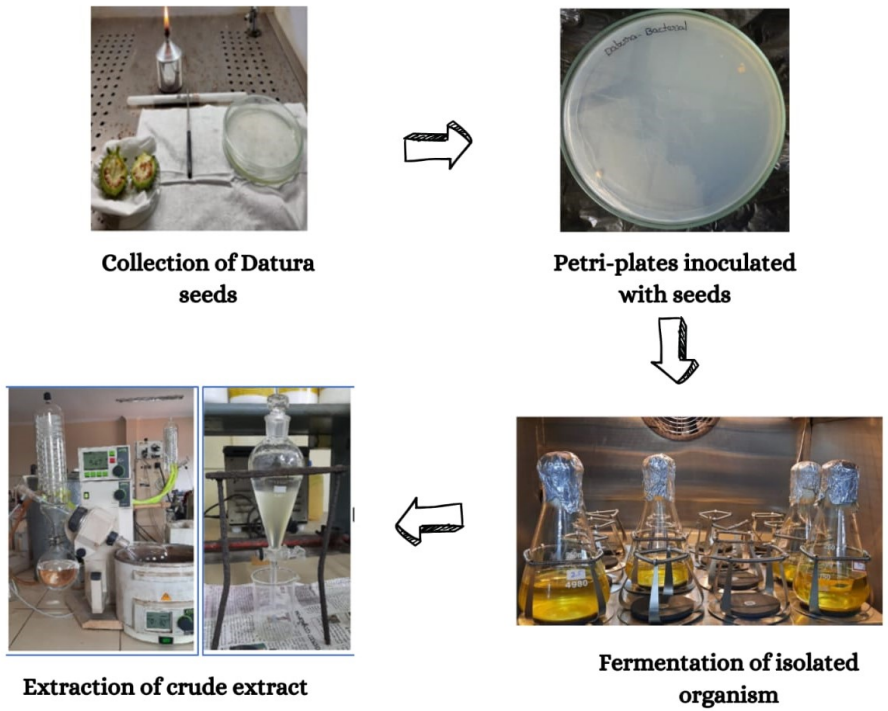


Figure S2 Isolation and purification of bioactive compound from endophytic bacteria

>907R_Seq153_DS5

GCATGGACTACCAGGGTATCTAATCCTGTTCGCTCCCCATGCTTTCGCTCCTCA
GCGTCAGTTACAGCCCAGAGACCTGCCTTCGCCATCGGTGTTCCTCCTGATATC
TGCGCATTCCACCGCTACACCAGGAATTCCAGTCTCCCCTACTGCACTCTAGTC
TGCCCGTACCCACCGCAGATCCGGGGTTAAGCCCCGGACTTTCACGACAGACG
CGACAAACCGCCTACGAGCTCTTTACGCCCAATAATTCCGGATAACGCTCGCA
CCCTACGTATTACCGCGGCTGCTGGCACGTAGTTAGCCGGTGCTTCTTCTGCAG
GTACCGTCACTTTCGCTTCTTCCCTACTGAAAGAGGTTTACAACCCGAAGGCCG
TCATCCCTCACGCGGCGTCGCTGCATCAGGCTTGCGCCCATTGTGCAATATTCC
CCACTGCTGCCTCCCGTAGGAGTCTGGGCCGTGTCTCAGTCCCAGTGTGGCCGG
TCACCCTCTCAGGCCGGCTACCCGTCGTCGCCTTGGTGAGCCATTACCTCACCA
ACAAGCTGATAGGCCGCGAGTCCATCCAAAACCGATAAATCTTTCCAACACCC
ACCATGCGGTGGACGCTCCTATCCGGTATTAGACCCAGTTTCCCAGGCTTATCC
CAGAGTTAAGGGCAGGTTACTCACGTGTTACTCACCCGTTCGCCACTAATCCAC
CC

Figure S3 Genotypic characterisation of the isolate DS5.The DS5 isolate was subjected to molecular identification and characterization based on their 16S rRNA sequence.

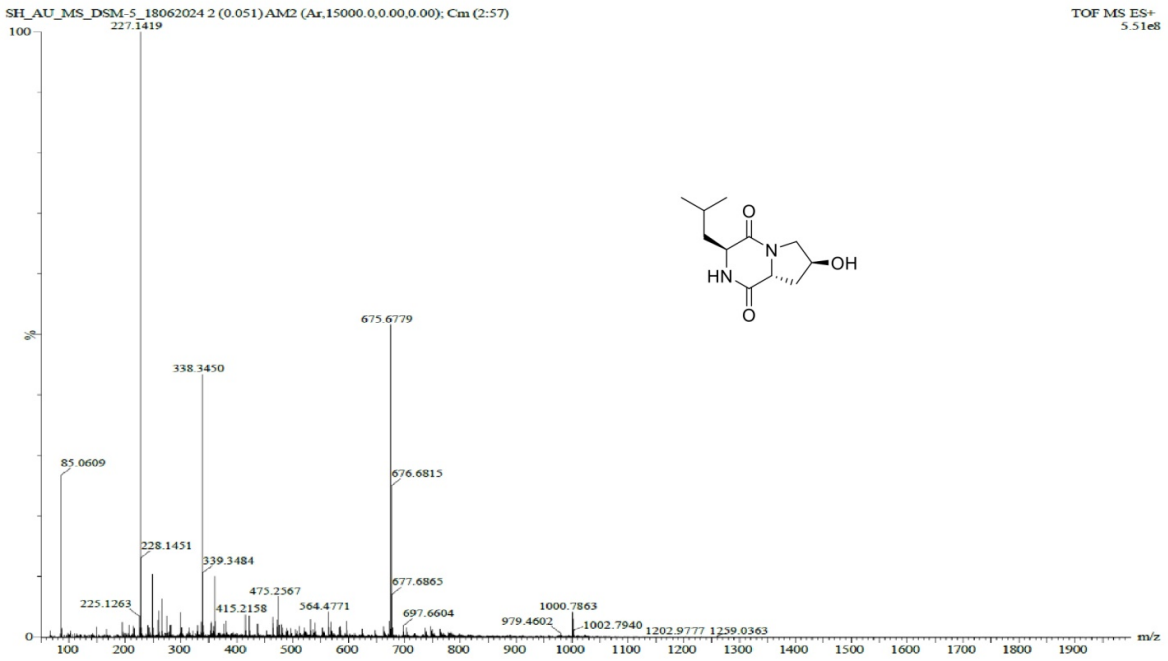


Figure S4 HRMS of compound DSM-05

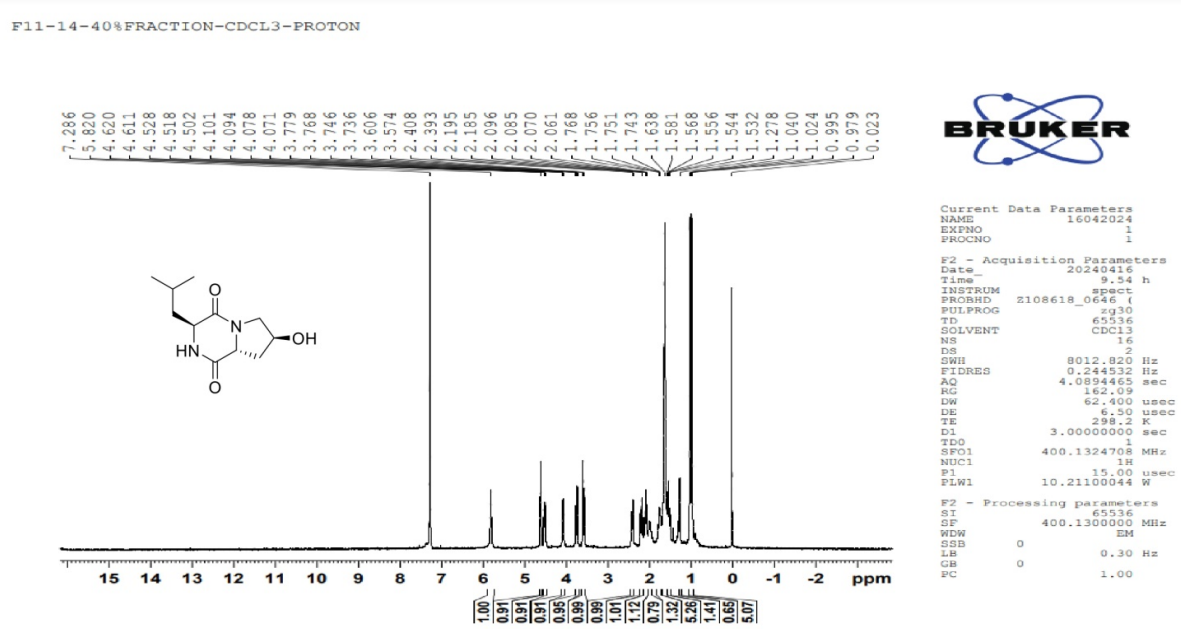


Figure S5 ^{1}HNMR of compound DSM-05

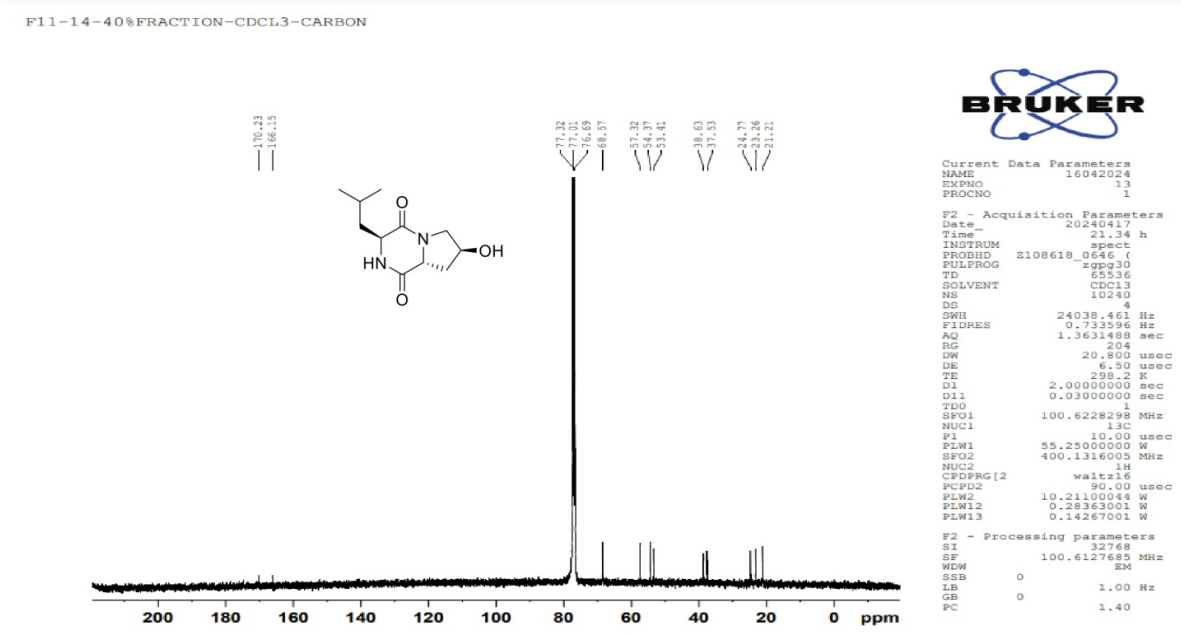


Figure S6 ^{13}CNMR of compound DSM-05

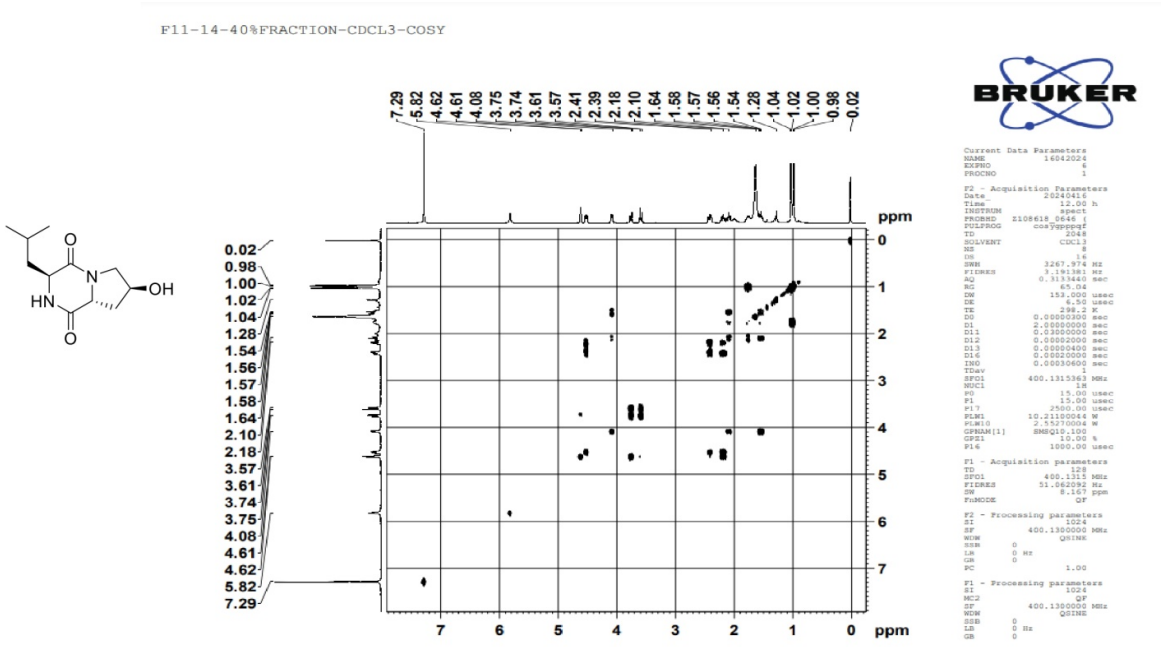


Figure S7 COSY of compound DSM-05

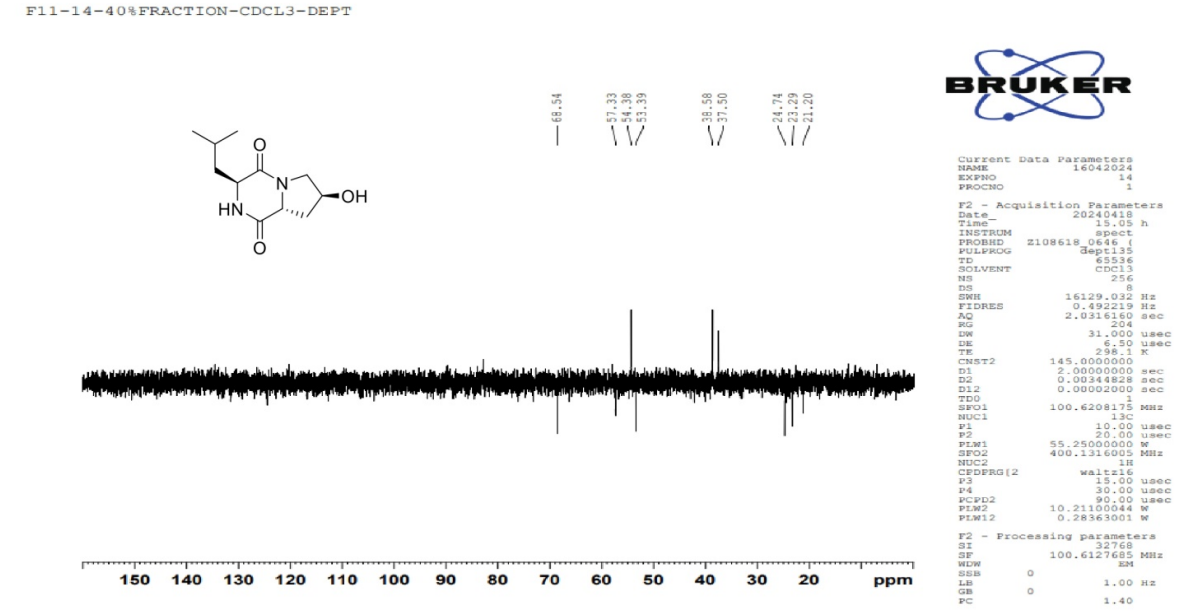
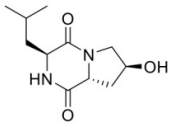


Figure S8 DEPT of compound DSM-05



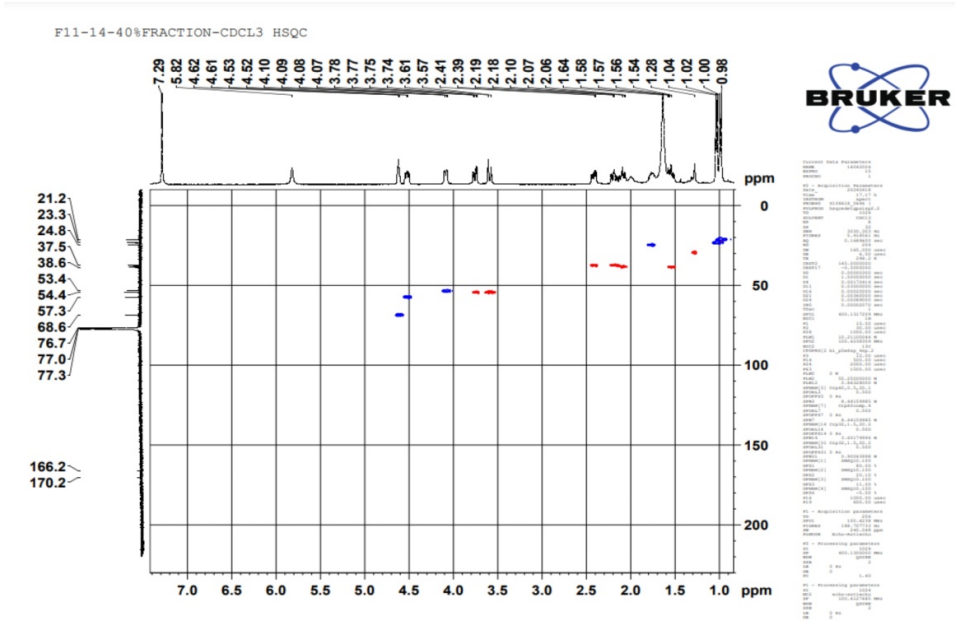


Figure S9 HSQC of compound DSM-05

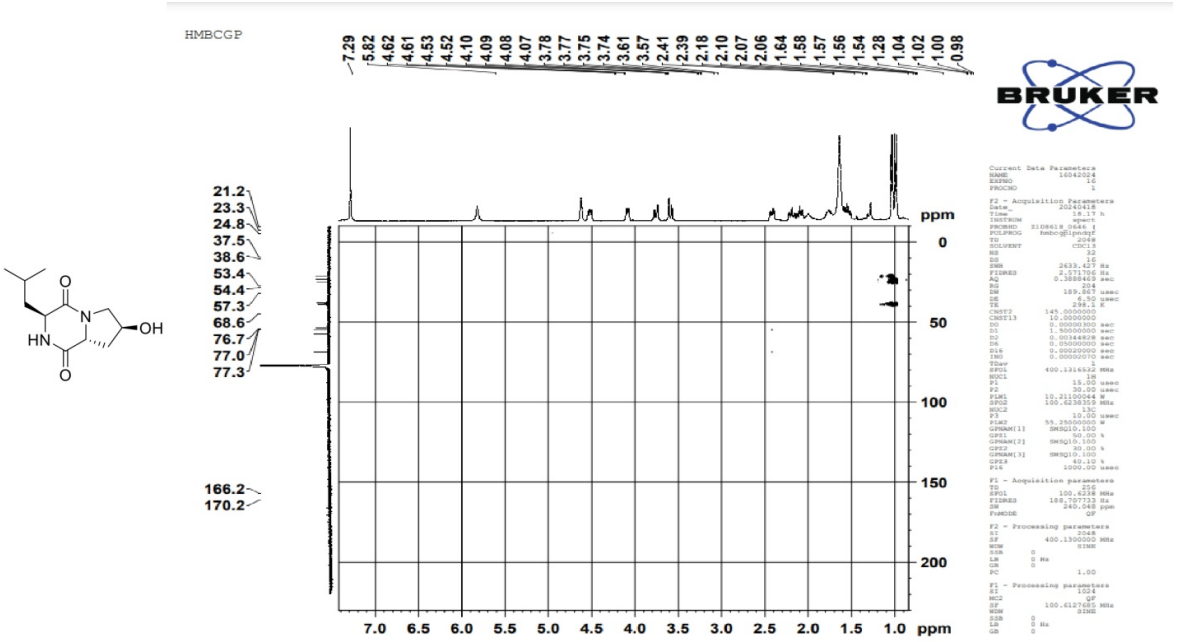


Figure S10 HMBC of compound DSM-05

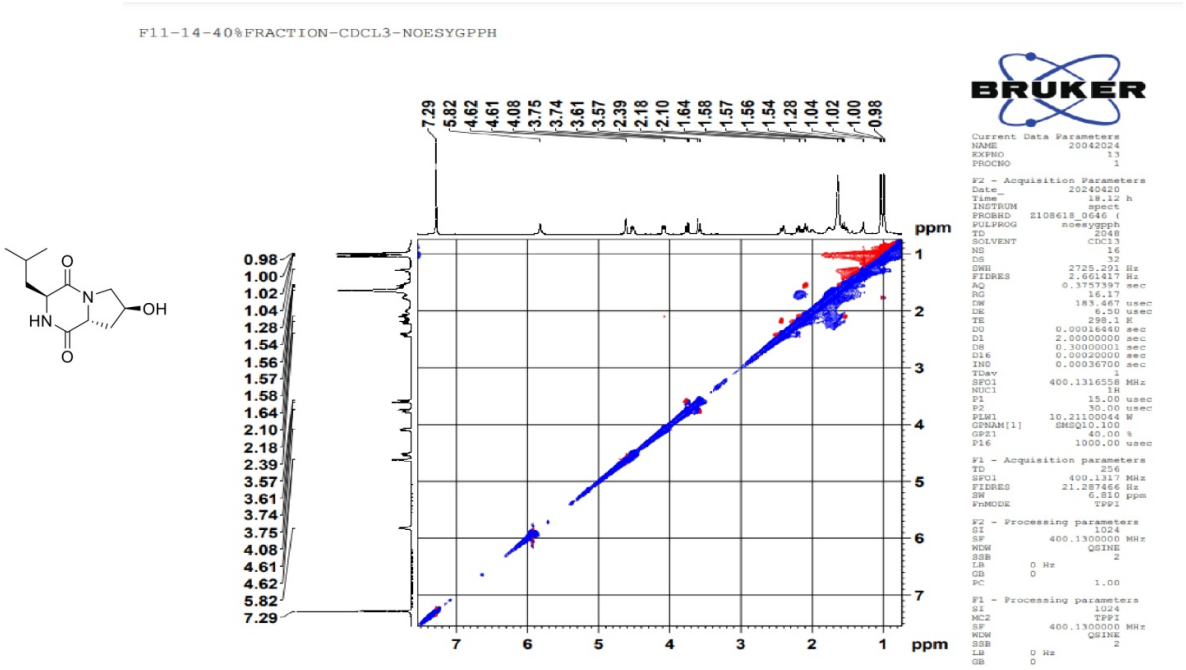


Figure S11 NOESY of compound DSM-05

Table S1 Column chromatography protocol

REQUIREMENTS	**PROPERTIES**			
Silica Gel	100-200 mesh			
Cleaning solvent	Water-acetone-hexane			
Amount	20 times more than the sample weight			
Drug adsorption	0.65 proportionate quantity of silica gel			
Eluent composition	**S.NO**	**Eluent Composition**	**Fractions**	**Inference**
	1	100% Hexane	F-1to 33	Clear oil to brown sticky material
	2	Ethyl acetate: Hexane(5:95)	F-34 to 44	Brown sticky material to No residue with a distinct odour
	3	Ethyl acetate: Hexane(20:80)	F-45 to 58	Creamy solid residue to Clear crystals with a distinct odour
Washing	100% Ethyl acetate			
TLC Plate mobile phase	10% Ethyl acetate : Chloroform			
Visualization	For 254 nm and 366 nm UV-active compounds			

Spraying Reagent	Sulphuric acid
R_f	$Rf = \frac{\text{Distance of centre of spot from starting point}}{\text{Distance of solvent front from starting point}}$

The VITEK2 Compact System provided an automated analysis, identifying the isolate as *Micrococcus luteus* with a confidence level of 99% .

Table S2 Biochemical test result

Biochemical Details																
2	AMY	-	4	PIPLC	-	5	dXYL	-	8	ADH1	-	9	BGAL	-	11	AGLU	+
13	APPA	-	14	CDEX	-	15	AspA	-	16	BGAR	-	17	AMAN	-	19	PHOS	-
20	LeuA	+	23	ProA	+	24	BGURr	-	25	AGAL	-	26	PYRA	+	27	BGUR	-
28	AlaA	+	29	TyrA	+	30	dSOR	-	31	URE	-	32	POLYB	-	37	dGAL	-
38	dRIB	-	39	ILATk	-	42	LAC	-	44	NAG	-	45	dMAL	-	46	BACI	-
47	NOVO	-	50	NC6.5	-	52	dMAN	-	53	dMNE	-	54	MBdG	-	56	PUL	-
57	dRAF	-	58	O129R	-	59	SAL	-	60	SAC	-	62	dTRE	-	63	ADH2s	-
64	OPTO	-															

Table S3 Performing a similarity search for isolate DS5 using the 16S rRNA gene sequence and employing BLAST at the National Centre for Biotechnological Information

NCBI-BLASTn hits (top 5-10)

Description	Scientific Name	Max Score	Total score	Query cover	E value	Per. Ident	Acc. Len	Accession
Micrococcus aloeverae strain AE-616S ribosomalRNA, partial sequence	*Micrococcus aloeverae*	1295	1295	100%	0.0	100.00%	1411	NR_134088.1
Micrococcus luteusstrain NCTC 2665 16Sribosomal RNA, partial sequence	*Micrococcus luteus*	1290	1290	100%	0.0	99.86%	1525	NR_075062.2
Micrococcus yunnanensisstrainYIM 65004 16S ribosomalRNA ,partialsequence	*Micrococcus yunnanensis*	1290	1290	100%	0.0	99.86%	1426	NR_116578.1
Micrococcus luteusstrain DSM 20030 16Sribosomal RNA, partial sequence	*Micrococcus luteus*	1290	1290	100%	0.0	99.86%	1418	NR_037113.1
Micrococcus luteusstrain ATCC 4698 16Sribosomal RNA, partial sequence	*Micrococcus luteus*	1290	1290	100%	0.0	99.86%	1418	NR_037113.1
Micrococcusendophyticusstrain YIM 56238 16S ribosomalRNA,partialsequence	*Micrococcus endophyticus*	1267	1267	100%	0.0	99.29%	1438	NR_044365.1