Supplementary Information

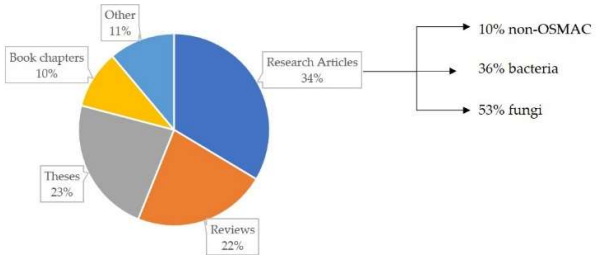


Figure S1. Distribution of Google Scholar-based literature survey results for the keywords "bacteria OSMAC" from 2002-2019. Despite the keyword "bacteria", many research paper hits deal with fungi. Molecular biology research and analytics publications have been categorized as non-OSMAC.

Table S1. NCBI Accession numbers of candidate strains examined with antiSMASH.

Strain	NCBI Accession #	Strain	NCBI Accession #
Bacillus cereus NC4701	AP007209	*Myxococcus xanthus* DK 1622	CP000113
Bacillus thuringiensis Bc60	CP015150	*Corallococcus coralloides DSM2259*	NC_017030
Bacillus subtilis TOA-JPC	NZ_CP011882	*Myxococcus stipitatus* DSM14675	CP004025
Bacillus subtilis PS832	NZ_CP010053	*Pyxidicoccus fallax HKI727*	Obtained from Prof. Nett's group of Technical Biology, TU Dortmund University
Bacillus atrophaeus UCMB5137	CP011802	*Streptomyces nodosus* ATCC14899	CP009313
Bacillus amyloliquefaciens DSM7	NC_014551	*Rhodococcus erythropolis* BG43	CP011295
Pseudomonas putida JBC17	CP029693	*Rhodococcus pyridinivorans* SB3094	NC_023150
Escherichia coli CFT-073	AE014075	*Rhodococcus jostii DSM44719*	NZ_FNTL01000004
Pseudomonas fluorescens LBUM223	NZ_CP011117	*Streptomyces laurentii* ATCC31255	AP017424
Pseudomonas protegens Pf-5	NC_04129	*Rhodococcus aetherivorans* IcdP1	NZ_CP011341
Streptomyces rapamycinicus NRRL5491	CP006567	*Streptomyces avermitilis* DSM46492	NZ_KQ948581
Sorangium cellulosum So ce56	AM746676	*Streptomyces griseochromogenes DSM40499*	NZ_CP016279

Paenibacillus polymyxa strain J	NZ_CP015423	*Actinosynnema mirum* DSM43827	NC_013093
Saccharopolyspora erythraea NRRL2338	NC_009142	*Streptomyces bingchenggensis* BCW-1	NC_016582
Pseudomonas aeruginosa AR0110	CP029745	*Pseudomonas aeruginosa* PB350	CP025055
Streptomyces violaceusniger Tu 4113	CP002994	*Rhodococcus opacus* B4	NC_012522
Rhodococcus erythropolis R138	NZ_CP007255	*Kribbella flavida* DSM 17836	NC_013729
Bacillus amyloliquefaciens FZB42	NC_009725	*Pseudomonas fluorescens* str. PCL1751	NZ_CP010896
Pseudomonas fluorescens str. FW300-N2C3	NZ_CP012831	*Bacillus coagulans*	CP025437
Melittangium boletus DSM 14713	CP022163	*S. aurantiaca* DW4/3-1	CP002271
Archangium gephyra DSM 2261	CP011509	*S. amylolyticus DSM 53668*	NZ_CP011125
Chondromyces crocatus Cm c5	CP012159		

Table S2. List of chemicals, chemical formulae and supplier. Chemicals were used in the purest form available.

Chemical	**Chemical formula**	**Supplier**	**Chemical**	**Chemical formula**	**Supplier**
BactoPeptone	-	Beckto Dickinson	magnesium sulfate heptahydrate	$MgSO_4$ x 7 H_2O	Carl Roth
meat extract	-	Fluka	dipotassium-phosphate	K_2HPO_4	Carl Roth
raffinose D(+) pentahydrate	$C_{18}H_{32}O_{16}$ x 5 H_2O	Sigma Aldrich	calcium chloride dihydrate	$CaCl_2$ x 2 H_2O	Carl Roth
sucrose D(+)	$C_{12}H_{22}O_{11}$	Carl Roth	vitamin B12	$C_{63}H_{88}CoN_{14}O_{14}P$	Carl Roth
galactose D(+)	$C_6H_{12}O_6$	Carl Roth	EDTA	$C_{10}H_{16}N_2O_8$	Carl Roth
soluble starch	$(C_6H_{10}O_5)n$	Carl Roth	iron (II) sulfate heptahydrate	$FeSO_4$ x 7 H_2O	Carl Roth
BactoCasitone	-	Beckto Dickinson	zinc sulfate heptahydrate	$ZnSO_4$ x 7 H_2O	AppliChem
boric Acid	H_3BO_3	Carl Roth	manganese	$MnCl_2$ x 4 H_2O	Carl Roth

			(II) cloride tetrahydrate		
cobalt (II) chloride hexahydrate	$CoCl_2$ x 6 H_2O	Carl Roth	copper (II) chloride dihydrate	$CuCl_2$ x 2 H_2O	Carl Roth
nickel (II) chloride dihydrate	$NiCl_2$ x 6 H_2O	Alfa Aesar	sodium molybdate dihydrate	$MoNa_2O_4$ x 2 H_2O	Carl Roth
peptone from soybean	-	Carl Roth	D (+) glucose	$C_6H_{12}O_6$	Carl Roth
sodium chloride	NaCl	Carl Roth	Bacto yeast extract	-	Beckto Dickinson
malt extract	-	Carl Roth	HEPES	$C_8H_{18}N_2O_4S$	Carl Roth
tryptone	-	Carl Roth	L-glutamic acid	$C_5H_9NO_4$	AppliChem
potassium chloride	KCl	Carl Roth	sodium nitrate	$NaNO_3$	Carl Roth
potassium dihydrogen phosphate	KH_2PO_4	Carl Roth	thiamine-HCl	$C_{12}H_{17}ClN_4OS$ x HCl	Carl Roth
L-phenyl-alanine	$C_9H_{11}NO_2$	Carl Roth	L-proline	$C_5H_9NO_2$	Carl Roth
manganese (II) sulfate hydrate	$MnSO_4$ x H_2O	Carl Roth	disodium hydrogen phosphate	Na_2HPO_4 x 2 H_2O	AppliChem
copper (II) sulfate pentahydrate	$CuSO_4$ x 5 H_2O	Carl Roth	ammonium chloride	NH_4Cl	Carl Roth
ethyl acetate	$C_4H_8O_2$	VWR	methanol	CH_4O	Carl Roth
acetonitrile	C_2H_3N	Carl Roth	dimethyl sulfoxide	C_2H_6OS	Fisher Scientific
ethanol	C_2H_6O	Merck	toluene	C_7H_8	Fisher Scientific
surfactin	$C_{53}H_{93}N_7O_{13}$ $C_{52}H_{89}N_7O_{13}$	Santa Cruz Biotechno-logy	myxochelin A	$C_{20}H_{24}N_2O_7$	Biomol
cyclo-(tyr-pro)	$C_{14}H_{16}N_2O_3$	Carbo-synth Limited	nocardamin	$C_{27}H_{48}N_6O_9$	Biomol
desferrioxa-mine B	$C_{25}H_{48}N_6O_8$	Sigma			

Table S3. Composition of CY/H medium. Solutions A and B are to be autoclaved separately. 1 mL of each solution B and C will be added to solution A. Final pH = 7.4.

components	amount [g·L^{-1}]
solution A	
Bacto® Casitone	1.5
yeast extract	1.5
starch	4.0
soy flour	1.0
D-(+)-Glucose	1.0
$CaCl_2$ x 2 H_2O	1.0
MgSO4 x 7 H_2O	0.5
HEPES	11.9
solution B	
EDTA-iron	0.8 g
distilled water	100.0 ml
solution C	
Vitamin B_{12}	0.05 g
distilled water	100.0 ml

Table S4. Composition of LB medium. Final pH = 7.0.

Components	amount [g·L^{-1}]
tryptone	10.0
yeast extract	5.0
NaCl	10.0

Table S5. Composition of MD1+G medium. Final pH = 7.4.

Components	amount [g·L^{-1}]
MD1 recipe	
D-(+)-Glucose	2.2

Table S6. Composition of Landy medium. Final pH = 7.0.

Components	**amount [g·L^{-1}]**
D-(+)-Glucose	20.0
L-glutamic acid	5.0
L-phenylalanine	2.0
$MgSO_4$ x 7 H_2O	0.5
KCl	0.5
KH_2PO_4	1.0
1% $FeSO_4$	15 µL/L
1% $MnSO_4$	500 µL/L
1% $CuSO_4$	16 µL/L

Table S7. Composition of Glucose Minerals Salts (GMS) medium. Final pH = 7.0.

Components	**amount [g·L^{-1}]**
$NaNO_3$	2.0
K_2HPO_4	0.5
$MgSO_4$ x 7 H_2O	0.2
$MnSO_4$ x 5 H_2O	0.02
$FeSO_4$ x 7 H_2O	0.02
$CaCl_2$ x 7 H_2O	0.02
D-(+)-Glucose	5.0

Table S8. Composition of M9 medium and 1% PO_4^{3-} M9 medium. Final pH = 7.4.

components	**amount [mL]**
1 M $MgSO_4$	1.0
0.1 M $CaCl_2$	1.0
1 M thiamine-HCl x 2 H_2O	1.0
D-(+)-glucose	2.01 g
L-proline	20.0 mg
distilled water	900.0
salt solution	100.0
salt solution for M9 medium	
Na_2HPO_4	6.0 g

KH_2PO_4	3.0 g
NH_4Cl	1.0 g
NaCl	0.5 g
distilled water	100.0
salt solution for M9 medium 1% PO_4^{3-}	
Na_2HPO_4	0.06 g
KH_2PO_4	0.03 g
NH_4Cl	0.01 g
NaCl	0.005 g
distilled water	100.0

Table S9. Steps for raw data preparation with MZmine 2.35.

Input	Step	Settings	Output
raw data, mzXML-format	Peak Detection -> Mass Detection	MS level: 1 Mass Detector: Centroid Noise level: 1.0E4	mass list
mass list	Peak Detection -> Chromatogram Builder	MS level: 1 Min time span: 0.01 min Min height: 3.0E4 m/z tolerance: 0.0 m/z or 20 ppm	peak lists, suffix: chromatograms

Table S10. Steps for peak list processing with MZmine 2.35 with t_R = retention time.

Input	Step	Settings	Output
peak lists, suffix: chromatograms	Peak Detection -> Chromatogram Deconvolution	Algorithm: Baseline cut-off	peak lists, suffix: chromatograms deconvoluted
peak lists, suffix: chromatograms deconvoluted	Isotopes -> Isotopic peaks grouper	m/z tolerance: 0.0 m/z or 20 ppm t_R tolerance: 0.1 min Maximum charge: 3 Representative isotope: lowest m/z	peak lists, suffix: chromatograms deconvoluted deisotoped
peak lists,	Alignment -> Join	m/z tolerance: 0.0	aligned peak list

suffix: chromatograms deconvoluted deisotoped	Aligner	m/z or 20 ppm Weight for m/z: 75 t_R tolerance: 0.1 min Weight for RT: 25	
aligned peak list	Filtering -> Peak list rows filter	Minimum peaks in a row: 2 remove rows that match all criteria	aligned peak list, suffix: filtered
aligned peak list, suffix: filtered	Filtering -> Peak list rows filter	RT: 1.0-11.0 min keep rows that match all criteria	aligned peak list, suffix: filtered filtered

Table S11. Numbers of BGCs of different natural product classes present on the genomes of selected strains. Some BGCs were not clearly identified and were labeled as two classes by antiSMASH. Those BGCs have been counted twice. Therefore, the total number of BGCs does not necessarily equal the sum of listed gene clusters. PKS = polyketides, NRPs = non-ribosomal peptides, PKs-NRPs = PKs-NRPs-hybrid.

Natural product class	**# BGCs on DSM7 genome**	**# of BGCs on DSM2259 genome**	**# of BGCs on HKI727 genome**	**# of BGCs on DSM44719 genome**	**# BGCs on DSM40499 genome**
PKs	2	3	7	2	7
NRPs	3	4	8	11	3
PKs-NRPs	2	8	9	0	8
Terpenes	2	4	1	2	8
Lantipeptides	4	5	0	0	6
Bacteriocins	0	5	5	2	7
Other	1	5	3	3	14
Total	**11**	**34**	**33**	**18**	**49**
Orphan clusters	**5**	**22**	**11**	**5**	**11**

Table S12. Color code used for natural product classes in genome maps.

Color	Natural Product Class
	Non-ribosomal peptide (NRPS)
	Siderophore

	Lantipeptide
	Bacteriocin
	Polyketides (PKS)
	Terpenes
	PKS-NRPS-hybrids
	Ectoine
	Other group
	lassopeptide

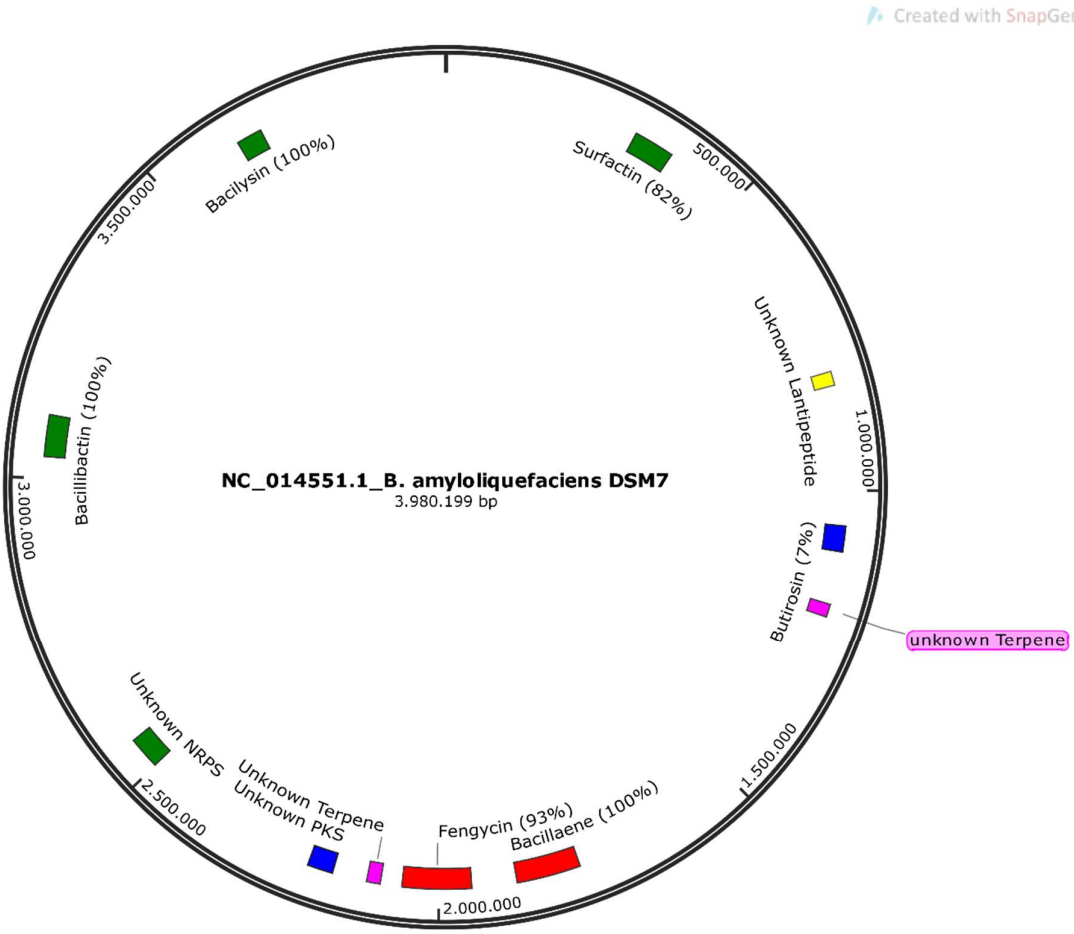


Figure S2. antiSMASH predictions for *Bacillus amyloliquefaciens* DSM7.

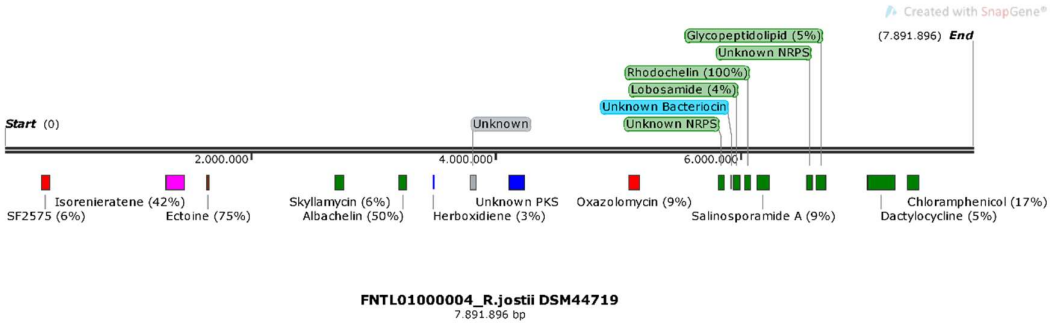


Figure S3. antiSMASH predictions for *Rhodococcus jostii* DSM44719.

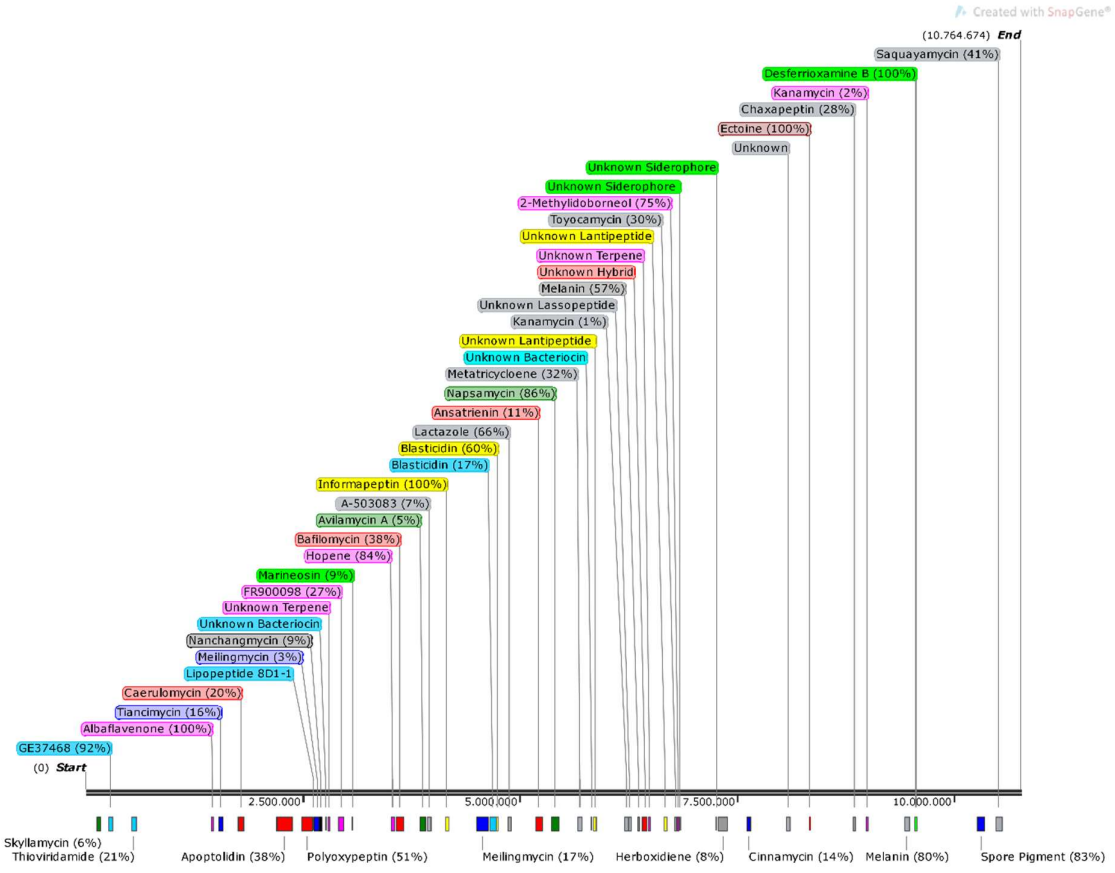


Figure S4. antiSMASH predictions for *Streptomyces griseochromogenes* DSM40499.

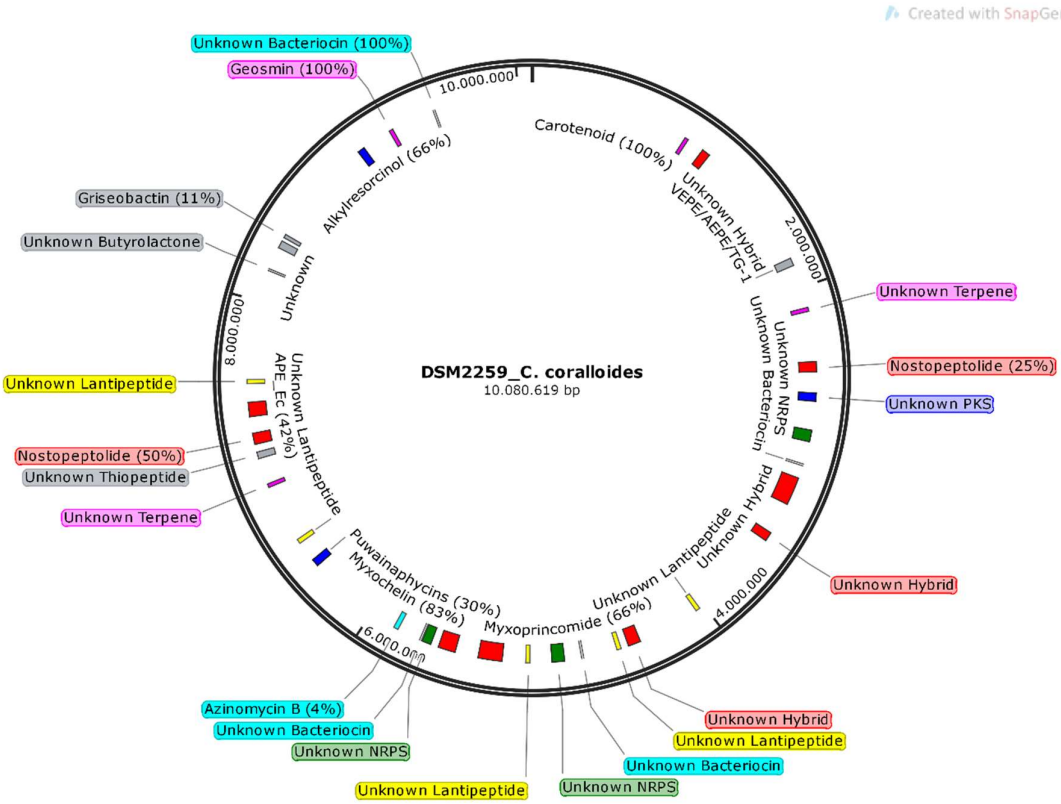


Figure S5. antiSMASH predictions for *Corallococcus coralloides* DSM2259.

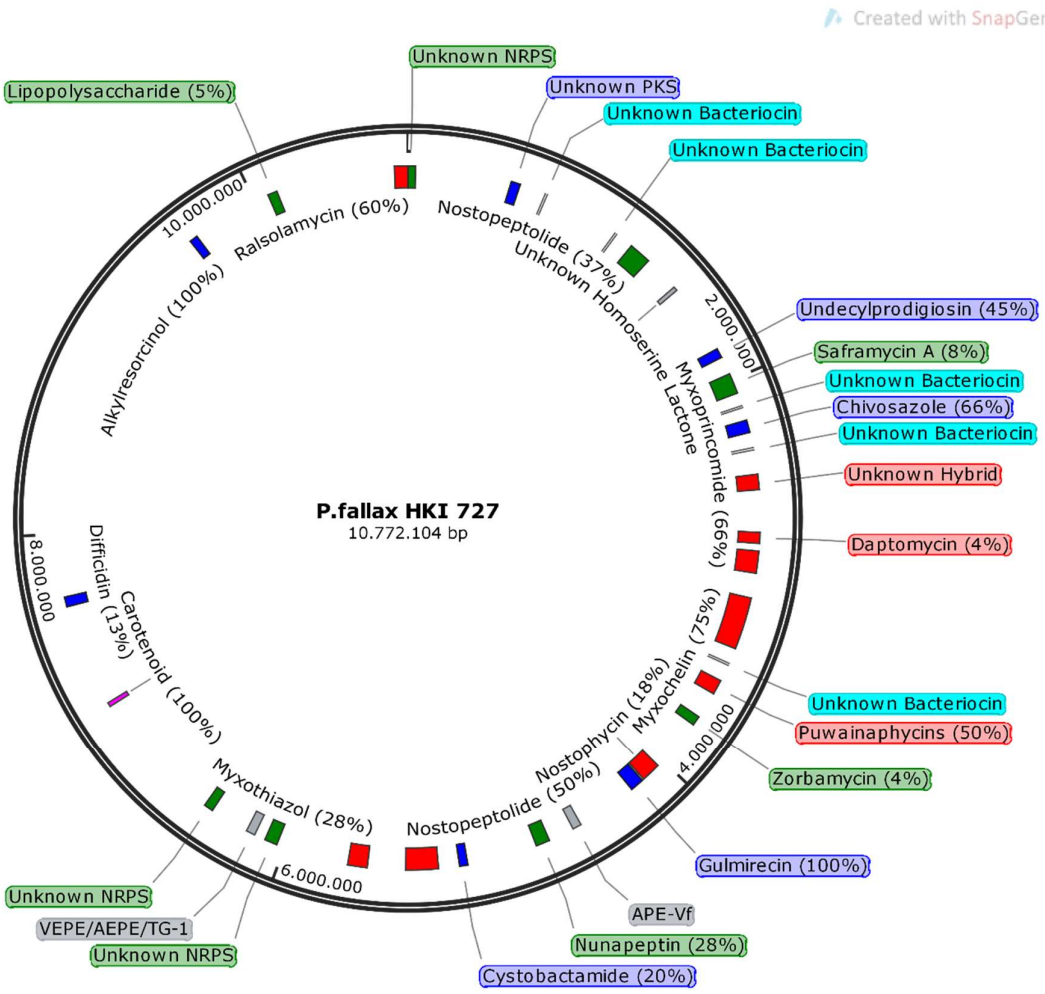


Figure S6. antiSMASH predictions for Pyxidicoccus fallax HKI727.

Table S13. Overview of compounds and corresponding producing conditions from selected strains. Bold print indicates that the compounds were not detected in control group samples.

Strain	Detected compound (% similarity)	Producing conditions
B. amyloliquefaciens DSM 7	**surfactin** (82%)	40°C, GMS medium, Fe^{3+}-limited GMS medium (GMS FeX), 3% EtOH, 3% Tol, addition of sterile-filtered supernatant of *P. fallax*
	bacillibactin (100%)	Fe^{3+}-limited GMS medium (GMS FeX),
	putative bacillaene (100%)	control, LB medium, 40°C, Fe^{3+}-limited GMS medium (GMS FeX), 3% EtOH, 3% Tol, addition of sterile-filtered supernatant of *P. fallax*
P. fallax HKI727	**myxochelin A** (75%)	NB medium, SP medium, M9 medium, M9 medium with 1% PO_4^{3-}, 25°C, 35°C,

		0.5%/1%/3% DMSO, 0.5%/1% EtOH, addition of *C. coralloides* or *S. griseochromogenes* pellet.
	nostophycin (18%)	GMS medium, Fe^{3+}-limited GMS medium (GMS FeX), Mg^{2+}-limited GMS medium (GMS MgX), 6% EtOH, 6% Tol
S. griseochromogenes DSM 40499	desferrioxamine B (100%)	all tested conditions **BUT**: TSB medium, GMS medium, Mg^{2+}-limited GMS medium (GMS MgX), 6% ACN, addition of Tol, 8% EtOH
	albaflavenone (100%)	oxygen limitation, SP medium, GMS medium, Fe^{3+}-limited GMS medium (GMS FeX), Mg^{2+}-limited GMS medium (GMS MgX)

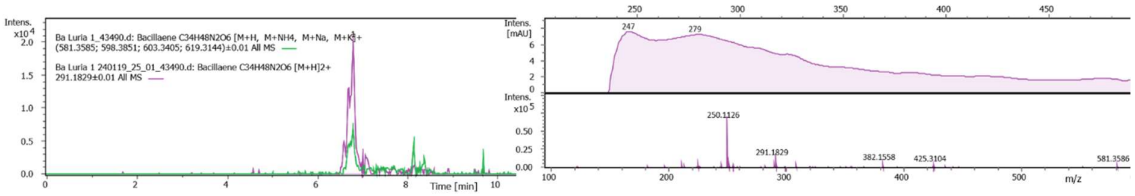


Figure S7: Extracted Ion Chromatograms (EICs) of singly and double charged of putative bacillaene from *B. amyloliquefaciens* cultures grown on LB medium and corresponding MS-spectrum.

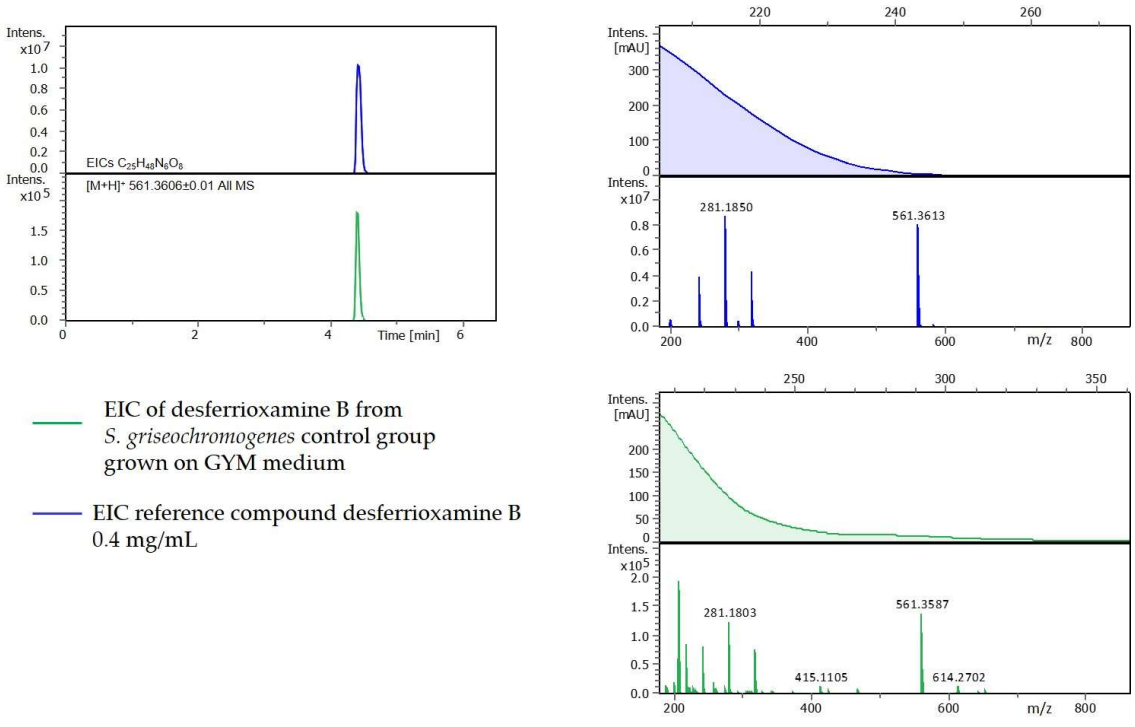


Figure S8. Comparison of chromatograms (EICs) and MS-spectra of desferrioxamine B reference compound (blue) and EIC of *S. griseochromogenes* control group sample (green).

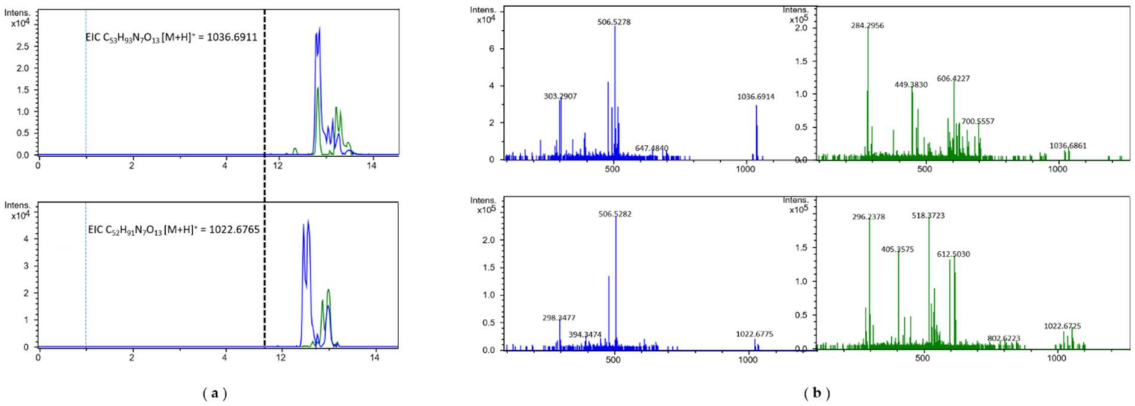


Figure S9. (**a**) Comparison of chromatograms of surfactin reference compund (contains C14- and C15-variant) (blue) and Extracted Ion Chromatograms (EICs) from sample *B. amyloliquefaciens* grown at 40°C (green). (**b**) Comparison of MS-spectra of surfactin reference compound and sample *B. amyloliquefaciens* grown at 40°C.

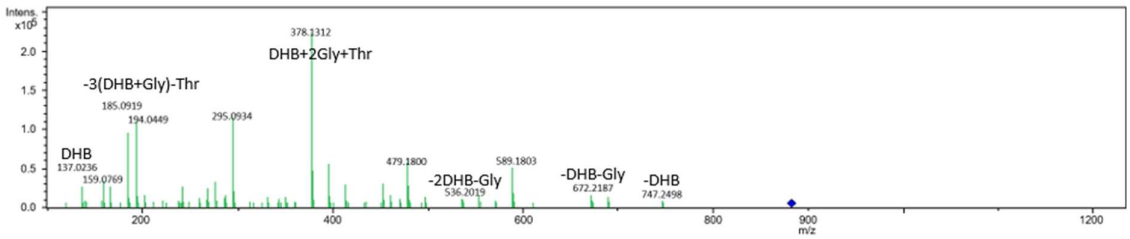


Figure S10. Experimental fragmentation pattern of bacillibactin with 45eV in accordance to [32]. Blue diamond marks the precursor molecule with m/z = 883.2424.

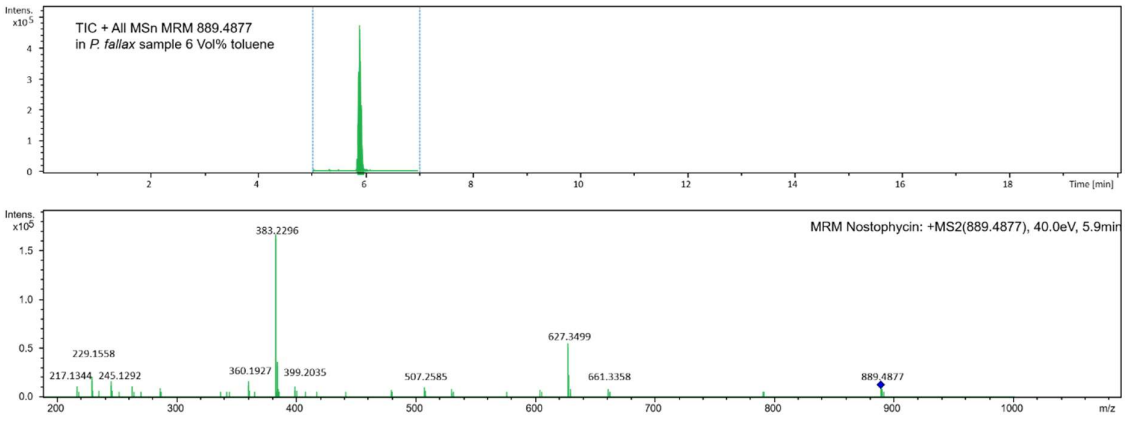


Figure S11. Total Ion Chromatogram (TIC) and fragmentation pattern of putative nostophycin in sample *P. fallax* 6 Vol% toluene. CE = 40eV.

Table S14. m/z of fragments generated through MS2 experiment of sample *P. fallax* 6 Vol% toluene and corresponding intensities used for *in silico* fragmentation of PubChem entry #101945102 for verification of nostophycin.

$m/z_{fragment}$	Intensity [%]
383.2296	100
627.3499	31.15
229.1558	10.26
360.1927	7.2

245.1292	7.2
263.1394	4.1
399.2035	4.0
217.1344	3.9
507.2585	3.5
286.1776	2.5
661.3358	2.0

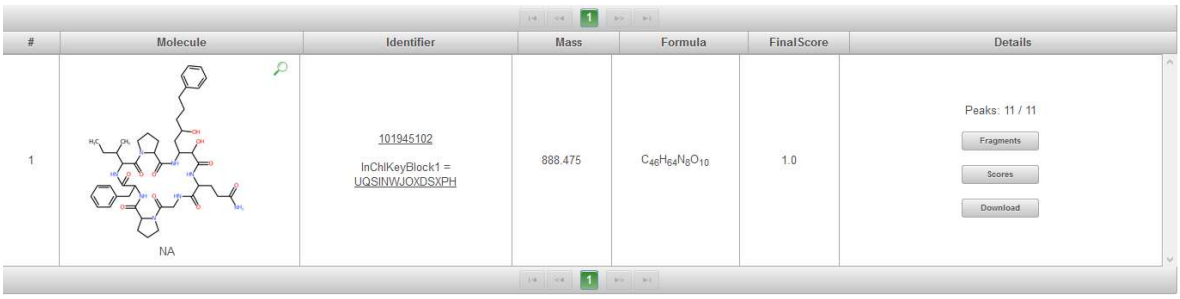


Figure S12. MetFrag results of in silico fragmentation of PubChem entry #101945102 compared with experimental MS2 spectrum of putative nostophycin. **(Figure S11, Table S14)**

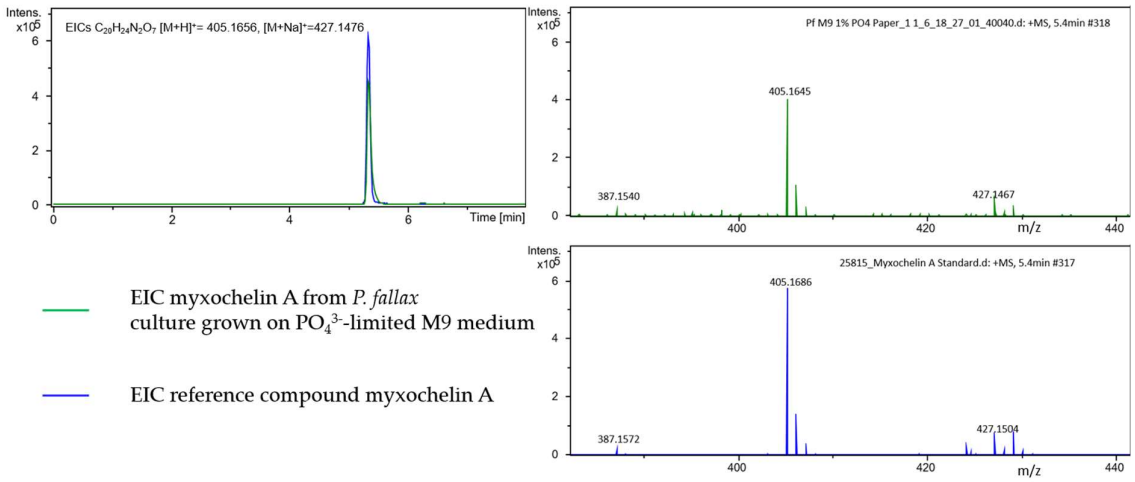


Figure S13. Comparison of chromatograms and MS-spectra of myxochelin A reference compound (blue) and EIC of sample *P. fallax* M9 1% PO_4^{3-} (green).

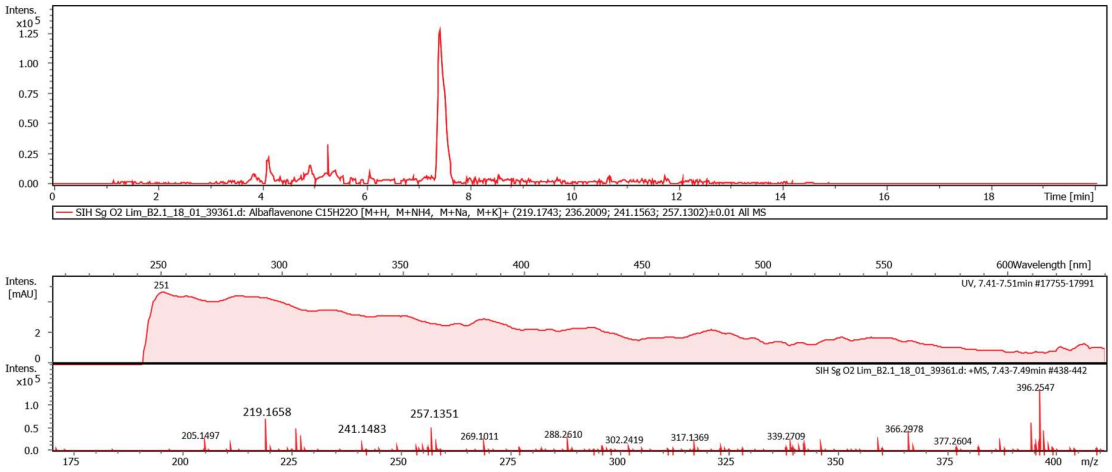


Figure S14. Extracted Ion Chromatogram and corresponding MS-spectrum of putative albaflavenone from oxygen limitation sample of *S. griseochromogenes* culture.

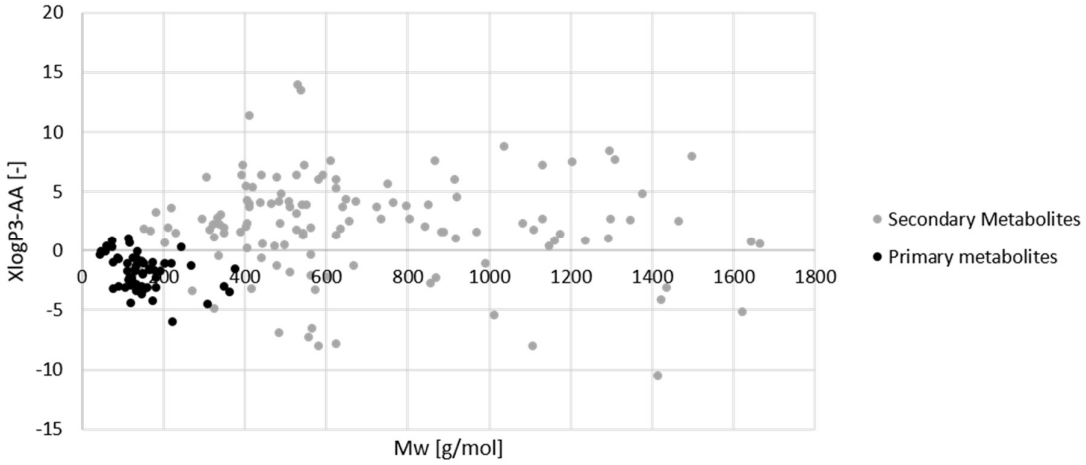


Figure S15. Comparison of physicochemical data of bacterial primary and secondary metabolites taken from PubChem.

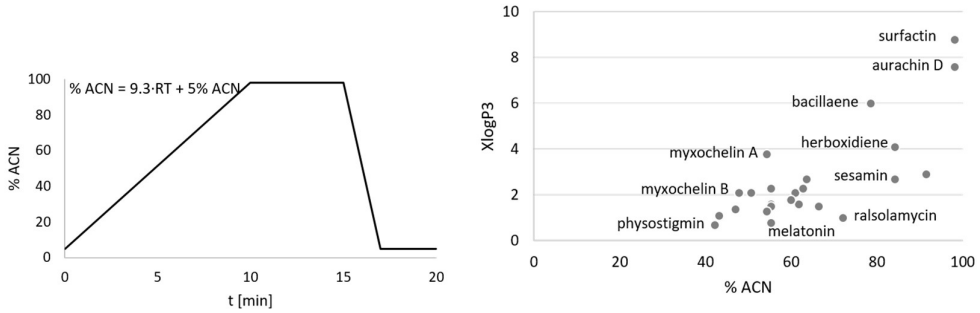


Figure S16. Visualization of employed HPLC method and correlation of logP values and ACN percentage at t_R.

Table S15. List of new mass features detected in extracts from *B. amyloliquefaciens* DSM7 including mass feature ID, $m/z_{measured}$, retention time (t_R), number of activating conditions and activating conditions.

ID	$m/z_{measured}$ [-]	t_R [min]	# of a.c.	activating conditions (a.c.)
Ba1	304.3004	8.51	1	Landy Medium
Ba2	332.3315	9.22	1	Landy Medium
Ba3	261.1232	4.5	4	GMS MgX, 40°C, LB Medium, Landy Medium
Ba4	338.1392	7.92	4	Landy Medium
Ba5	227.1389	3.92	3	GMS FeX, LB Medium, Landy Medium
Ba6	458.1596/ 436.172	5.9	1	Landy Medium
Ba7	277.1194	4.78	1	Landy Medium
Ba8	1057.57	7.21	1	LB Medium
Ba9	1071.5832	7.57	1	LB Medium
Ba10	1085.6	7.89	1	LB Medium
Ba11	250.1126	6.67	4	3% EtOH, 3% Tol, 40°C, LB Medium
Ba12	360.1934	4.45	1	LB Medium
Ba13	382.1563	6.64	2	GMS, LB Medium
Ba14	316.2487	7.7	2	+ Sg sup sf, + Pf sup auto
Ba18	418.2748	6.44	1	SP Medium
Ba19	346.2602	7.35	3	3% ACN, 25°C, + Sg sup sf
Ba20	510.3197	8.78	1	25°C
Ba21	233.1316	6.1	1	25°C
Ba22	363.1955	6.1	1	25°C
Ba23	228.223	10.33	1	40°C
Ba24	243.0854	6.13	1	40°C
Ba25	211.1408	6.13	1	40°C
Ba27	227.1728	5.79	3	3% EtOH, 3% Tol, 40°C
Ba28	311.1368	5.21	1	40°C
Ba29	225.041	6.69	1	40°C
Ba30	213.1574	5.3	2	3% EtOH, 40°C
Ba31	453.2702	4.09	1	40°C
Ba32	227.1529	5.41	1	GMS
Ba35	398.2633/ 382.2858	10.27	3	GMS MgX, GMS FeX, GMS
Ba36	495.2603	9.81	5	3% EtOH, 3% Tol, GMS MgX, GMS FeX, GMS
Ba38	370.2349	5.97	2	GMS FeX, GMS
Ba39	537.1458	4.77	2	GMS FeX, GMS
Ba41	412.2427/ 426.2224	7.16	1	GMS
Ba42	480.2127	7.41	1	GMS
Ba43	433.2961	10.43	5	3% EtOH, 3% Tol, GMS MgX, GMS FeX, GMS
Ba44	390.1644	7.43	1	GMS
Ba46	298.2746	9.94	1	GMS
Ba48	296.2594	9.49	1	GMS

Ba52	623.3655	8.36	1	GMS
Ba53	328.1826	9.81	2	GMS FeX, GMS
Ba54	263.2369	9.05	1	GMS
Ba55	317.2691	8.36	1	GMS
Ba56	607.1897	5.21	1	GMS FeX
Ba57	265.1273	3.74	1	GMS FeX
Ba58	883.2646	6.07	1	GMS FeX
Ba60	708.2496	4.85	1	GMS FeX
Ba61	218.1372	4.51	1	GMS FeX
Ba62	384.2504	6.4	1	GMS FeX
Ba63	901.275	5.85	1	GMS FeX
Ba64	225.1371	10.96	1	GMS FeX
Ba65	287.1968	5.43	1	M9 1% PO_4^{3-}
Ba68	341.1802	8.8	2	M9 Medium, + Cc Pellet
Ba69	359.1908	7.14	1	M9 Medium
Ba70	401.2043	8.1	1	M9 Medium
Ba71	354.4145	9.85	1	M9 Medium
Ba72	325.2259	6.91	1	3% EtOH
Ba73	240.1379	8.8	2	3% EtOH, 3% Tol
Ba74	269.2005	5.88	2	3% EtOH, 3% Tol
Ba75	343.2944	7.19	2	3% EtOH, 3% Tol
Ba77	250.118	9.36	2	3% EtOH, 3% Tol
Ba78	284.1386	6.02	2	3% EtOH, 3% Tol
Ba79	249.2057	8.48	2	3% EtOH, 3% Tol
Ba80	285.1047	6.25	2	3% EtOH, 3% Tol
Ba81	234.0579	8.31	2	3% EtOH, 3% Tol
Ba82	252.1074	9.47	1	3% EtOH
Ba85	296.2571	10.18	1	3% EtOH
Ba86	292.1067	5.88	2	3% EtOH, 3% Tol
Ba87	987.1246	8.33	1	3% EtOH
Ba88	328.2837	6.77	2	3% EtOH, 3% Tol
Ba89	443.2566	4.99	2	+ Sg sup sf, + Sg sup auto
Ba90	625.3203	4.21	1	+ Sg sup sf
Ba91	243.1407	4.19	1	+ Sg sup sf
Ba92	654.2732	4.31	1	+ Sg sup sf
Ba93	401.2462	5.07	1	+ Sg sup sf
Ba94	496.1674	4.04	1	+ Sg sup sf
Ba95	565.1014	10.79	5	+ Rj sup sf, + Cc sup sf, + Pf sup auto, + Pf Pellet
Ba96	553.3055	4.5	1	+ Rj sup sf
Ba97	396.9055	6.32	2	+ Rj sup sf, + Pf Pellet
Ba98	252.0972	10.79	2	+ Rj sup sf, + Pf Pellet
Ba99	279.1207	5.44	1	+ Rj sup sf
Ba100	727.5254	8.53	1	+ Rj sup sf
Ba101	256.2317	5.91	1	+ Cc sup sf
Ba102	274.2421	5.91	1	+ Cc sup sf

Ba103	268.1930	5.54	1	+ Cc sup sf
Ba104	743.411	7.3	1	+ Cc sup sf
Ba105	370.198	7.23	2	+ Cc sup sf, + Pf sup auto
Ba106	254.1079	4.76	1	+ Rj sup auto
Ba107	440.2823	8.46	1	+ Pf sup auto
Ba108	553.3378	4.36	1	+ Pf sup auto
Ba109	385.2492	4.28	1	+ Pf sup auto
Ba110	439.1387	9.25	1	+ Pf sup auto
Ba111	424.134	9.3	1	3% DMSO
Ba112	279.0808	5.04	1	3% DMSO
Ba113	257.1294	7.62	1	3% ACN
Ba114	226.1469	8.95	1	3% ACN
Ba115	376.1669	8.71	1	3% ACN
Ba116	415.2023	9.28	1	3% ACN
Ba117	297.1603	8.32	1	3% ACN
Ba118	399.2079	8.95	1	3% ACN
Ba119	269.1392	8.19	1	3% ACN
Ba120	301.1651	8.19	1	3% ACN
Ba121	273.1487	9.37	1	3% ACN
Ba122	283.1449	8.42	1	3% ACN
Ba123	222.1129	5.49	1	3% ACN
Ba124	230.0814	5.29	1	3% ACN
Ba125	241.1227	9.37	1	3% ACN
Ba126	529.2658	6.37	1	3% ACN
Ba127	310.1668	5.9	1	3% ACN
Ba128	260.1863	7.21	1	3% ACN
Ba129	360.275	7.51	1	3% ACN
Ba130	255.1499	7.95	2	3% ACN, + Cc Pellet
Ba131	305.1752	9.37	1	3% ACN
Ba132	274.202	7.5	1	3% ACN
Ba133	310.1408	6.1	1	3% ACN
Ba134	340.1774	6.15	1	3% ACN
Ba135	233.1257	8.24	1	3% ACN
Ba136	463.286	7.9	1	3% ACN
Ba137	421.2402	7.9	1	3% ACN
Ba138	403.2243	8.78	1	3% ACN
Ba139	243.135	3.81	1	3% ACN
Ba140	236.1285	5.95	1	3% ACN
Ba141	357.1615	8.56	1	3% ACN
Ba142	269.2034	5.74	1	+ Cc Pellet
Ba143	279.106	9.16	1	+ Cc Pellet
Ba144	250.1234	8.15	1	+ Cc Pellet
Ba145	445.2617	8.96	1	+ Cc Pellet

Table S16. List of new mass features detected in extracts from *C. coralloides* DSM2259 including mass feature ID, $m/z_{measured}$, retention time (t_R), number of activating conditions and activating conditions.

ID	$m/z_{measured}$ [-]	t_R [min]	# of a.c.	activating conditions (a.c.)
Cc1	360.3602	9.4	1	M9 1% PO_4^{3-}
Cc6	385.1893	9.2	1	+ Sg sup auto
Cc8	793.3483	8.06	1	MD1 medium
Cc11	707.3117	7.7	1	MD1 medium
Cc12	332.3299	8.7	3	0,5% Tol, M9 medium, M9 1% PO_4^{3-}
Cc18	284.2593	7.7	1	MD1+G medium
Cc21	304.2975	8.0	5	M9 1% PO_4^{3-}, M9 medium, + Rj sup sf, + Pf sup sf, + Ba sup sf
Cc22	357.1579	10.2	2	0,5% Tol, GMS FeX
Cc27	349.2323	6.5	1	+ Ba P
Cc29	361.265	7.23	1	+ Ba sup sf
Cc42	601.3558	4.68	3	+ Sg sup sf, + Ba sup sf, + Rj sup sf
Cc49	343.2947	6.97	1	3% EtOH
Cc50	371.3278	7.82	1	3% EtOH
Cc58	348.322	6.79	1	+ Pf sup sf
Cc59	342.3742	7.46	2	+ Ba sup sf, + Pf sup sf
Cc63	587.3396	4.49	4	+ Rj sup auto, + Pf sup auto, + Ba sup auto, + Ba sup sf
Cc84	347.1532	6.18	1	+ Ba sup sf
Cc90	393.2525	3.13	1	+ Rj sup auto
Cc102	243.0859	5.48	1	40°C
Cc104	268.0811	5.26	1	40°C
Cc105	231.1141	5.95	1	40°C
Cc146	443.2531	4.6	1	+ Sg sup auto
Cc147	487.199	5.98	1	+ Sg sup auto
Cc148	399.172	9.3	1	+ Sg sup auto
Cc149	435.2194	6.52	1	+ Sg sup auto
Cc154	521.2413	3.01	1	+ Ba sup auto
Cc155	387.2056	5.51	1	+ Pf sup auto
Cc167	254.1018	5.14	1	40°C
Cc181	242.2838	7.82	2	GMS FeX, GMS MgX
Cc183	214.2525	7.13	3	GMS, GMS FeX, GMS MgX
Cc186	371.1742	5.59	1	GMS FeX
Cc187	359.1737	5.83	1	GMS FeX
Cc189	375.1688	6.22	1	GMS FeX
Cc190	284.1579	6.45	1	+ Pf sup sf
Cc193	359.1737	8.33	1	GMS FeX
Cc210	566.2988	9.64	1	GMS FeX
Cc243	380.2758	6.67	1	M9 FeX
Cc244	330.2638	5.81	1	M9 FeX

Cc249	340.2847	6.67	3	M9 FeX, + Rj sup sf, + Pf sup sf
Cc250	293.2003	6.64	1	M9 FeX
Cc274	585.3623	4.82	1	O2-Lim
Cc275	373.1203	7.18	1	O2-Lim
Cc276	337.1464	10.57	1	O2-Lim

Table S17. List of new mass features detected in extracts from *P. fallax* HKI727 including mass feature ID, $m/z_{measured}$, retention time (t_R), number of activating conditions and activating conditions.

ID	**$m/z_{measured}$ [-]**	**t_R [min]**	**# of a.c.**	**activating conditions (a.c.)**
Pf2	312.2872	7.92	1	NB medium
Pf12	441.1847	1.19	1	NB medium
Pf17	300.324	8.78	1	NB medium
Pf22	276.1065	1.12	1	NB medium
Pf24	330.2622	8.66	1	SP medium
Pf27	521.2367	2.74	1	TSB medium
Pf31	247.1279	1.8	1	1% DMSO @35°C
Pf43	313.2007	6.17	1	1% EtOH @25°C
Pf48	314.3031	7.99	2	+ Ba Pellet, NB medium
Pf54	353.2053	5.49	1	SP medium
Pf55	433.1931	6.18	2	SP medium, + Cc sup auto
Pf56	356.1453	1.85	1	1% DMSO @35°C
Pf57	340.3579	8.43	1	TSB medium
Pf60	325.1764	4.89	2	SP medium, + Cc sup sf
Pf61	342.3715	8.36	1	1% Tol
Pf62	312.3621	8.95	2	1% DMSO @35°C, SP medium
Pf63	272.1582	4.46	8	1% DMSO @35°C, 0,5% DMSO, SP medium, + Cc sup sf, + Ba sup sf, + Cc Pellet, + Ba Pellet, 35°C
Pf69	298.3445	8.63	5	1% DMSO @35°C, 1% Tol, 0,5% Tol @ 25°C, TSB medium, SP medium
Pf77	255.1692	4.72	1	TSB medium
Pf92	358.1384	4.24	3	1% DMSO @35°C, 3% EtOH, 25°C
Pf93	316.182	3.74	1	25°C
Pf95	383.2239	4.06	1	25°C
Pf96	343.1938	2.27	2	1% DMSO @35°C, 25°C
Pf97	295.1247	3.33	1	25°C
Pf98	250.9953	7.87	2	35°C, 25°C
Pf99	316.243	9.29	1	25°C
Pf103	451.1426	3.72	5	1% DMSO @35°C, 3% DMSO, 0,5% DMSO, 3% EtOH, 1% EtOH @25°C
Pf104	619.2468	4.82	2	0,5% DMSO, 1% EtOH @25°C
Pf105	375.1246	4.83	1	0,5% DMSO
Pf106	387.1464	4.55	7	1% DMSO @35°C, 3% DMSO, 0,5% DMSO, 3% EtOH, 1% EtOH @25°C, 1% Tol, 0,5% Tol @ 25°C

Pf108	716.4562	5.14	7	1% DMSO @35°C, 3% DMSO, 0,5% DMSO, 3% EtOH, 1% EtOH @25°C, 1% Tol, 0,5% Tol @ 25°C
Pf109	315.2194	6.3	6	0,5% DMSO, + Cc sup sf, + Ba sup sf, + Ba sup auto, + Cc Pellet, + Ba Pellet
Pf110	575.5	8.14	9	1% DMSO @35°C, 3% DMSO, 0,5% DMSO, 3% EtOH, 1% EtOH @25°C, 0,5% EtOH @ 35°C, 3% Tol @ 35°C, 1% Tol, 0,5% Tol @ 25°C
Pf111	705.4926	8.14	9	1% DMSO @35°C, 3% DMSO, 0,5% DMSO, 3% EtOH, 1% EtOH @25°C, 0,5% EtOH @ 35°C, 3% Tol @ 35°C, 1% Tol, 0,5% Tol @ 25°C
Pf112	900.6918	8.14	9	1% DMSO @35°C, 3% DMSO, 0,5% DMSO, 3% EtOH, 1% EtOH @25°C, 0,5% EtOH @ 35°C, 3% Tol @ 35°C, 1% Tol, 0,5% Tol @ 25°C
Pf114	272.2238	9.64	9	1% DMSO @35°C, 3% DMSO, 0,5% DMSO, 3% EtOH, 1% EtOH @25°C, 0,5% EtOH @ 35°C, 3% Tol @ 35°C, 1% Tol, 0,5% Tol @ 25°C
Pf115	406.106	1.,76	1	0,5% DMSO
Pf120	586.1848	3.91	5	1% DMSO @35°C, 3% DMSO, 3% EtOH, 1% EtOH @25°C, 0,5% Tol @ 25°C
Pf122	351.1488	3.38	3	3% EtOH, 0,5% Tol @ 25°C
Pf123	723.2384	3.91	5	1% DMSO @35°C, 3% DMSO, 3% EtOH, 1% EtOH @25°C, 0,5% Tol @ 25°C
Pf124	243.1353	3.97	1	1% DMSO @35°C
Pf125	1015.4444	4.82	6	1% DMSO @35°C, 3% DMSO, 3% EtOH, 1% EtOH @25°C, 1% Tol, 0,5% Tol @ 25°C
Pf129	532.2226	10.71	3	3% DMSO, 3% EtOH, 1% EtOH @25°C
Pf131	321.1285	5.27	1	3% DMSO
Pf132	292.1819	5.46	2	3% DMSO, 1% EtOH @25°C
Pf134	421.2044	10.42	1	3% DMSO
Pf144	332.176	10.3	1	3% EtOH
Pf159	270.1444	5.07	3	3% DMSO, 3% EtOH, 1% EtOH @25°C
Pf160	421.1298	4.63	1	1% EtOH @25°C
Pf161	505.2129	5.38	1	3% EtOH
Pf163	270.1459	5.02	3	3% EtOH, 1% Tol, 0,5% Tol @ 25°C
Pf164	383.2291	3.72	1	3% EtOH
Pf165	523.2568	4.82	2	3% EtOH, 0,5% Tol @ 25°C
Pf167	1258.5694	4.8	1	0,5% Tol @ 25°C
Pf169	1187.9476	8.14	3	3% DMSO, 3% EtOH, 1% EtOH @25°C
Pf171	342.1983	6.27	3	3% DMSO, GMS FeX, M9 1% PO_4^{3-}
Pf175	354.2189	6.37	1	1% EtOH @25°C
Pf176	415.2124	8.11	1	3% EtOH
Pf178	356.1772	6.85	1	3% EtOH
Pf184	274.0961	9.22	1	3% DMSO
Pf185	245.1278	9.31	3	3% DMSO, 3% EtOH, 1% EtOH @25°C
Pf186	799.178	9.36	2	3% EtOH, 1% EtOH @25°C

Pf192	229.1219	2.22	1	1% DMSO @35°C
Pf201	243.1963	8.07	1	3% EtOH
Pf202	244.2295	8.33	2	1% DMSO @35°C, 3% EtOH
Pf204	456.264	10.74	1	3% EtOH
Pf205	299.2589	10.47	1	3% EtOH
Pf208	357.1772	10.28	1	3% EtOH
Pf213	393.2579	4.48	2	3% EtOH, 0,5% Tol @ 25°C
Pf214	475.2567	4.09	1	3% EtOH
Pf217	314.2695	8.38	1	3% EtOH
Pf218	378.2036	3.45	1	3% EtOH
Pf220	225.149	8.93	1	3% EtOH
Pf221	328.2241	3.99	1	3% EtOH
Pf222	298.2747	9.68	1	3% EtOH
Pf223	320.1758	5.95	1	3% EtOH
Pf224	338.2677	7.87	1	3% EtOH
Pf228	342.2395	4.36	1	3% EtOH
Pf231	943.6278	5.37	1	3% EtOH
Pf232	440.2512	3.54	1	3% EtOH
Pf240	467.2943	4.43	1	0,5% Tol @ 25°C
Pf245	583.4444	10.42	2	1% DMSO @35°C, 0,5% Tol @ 25°C
Pf258	330.2033	1.98	1	1% DMSO @35°C
Pf259	333.1697	6.18	1	1% EtOH @25°C
Pf260	334.2294	7.01	1	1% EtOH @25°C
Pf261	242.0869	3.15	1	1% EtOH @25°C
Pf279	254.1054	5.09	1	+ Cc sup auto
Pf280	327.2079	5.41	1	+ Cc sup auto
Pf282	314.3063	8.07	3	+ Sg sup sf, + Ba sup sf, + Sg sup auto
Pf285	300.2911	7.82	1	+ Sg sup auto
Pf286	316.3225	8.31	4	+ Sg sup sf, + Ba sup sf, + Sg sup auto, + Ba Pellet
Pf287	316.3225	6.94	1	+ Sg sup auto
Pf290	290.1301	8.76	2	+ Sg sup auto, + Rj sup auto
Pf292	235.1094	1.33	1	+ Rj sup auto
Pf293	381.1715	9.42	1	+ Rj sup auto
Pf294	274.1636	10.33	3	+ Sg sup sf, + Cc sup sf, + Ba sup sf
Pf295	269.2061	5.75	1	+ Sg sup sf
Pf297	358.206	8.78	3	+ Sg sup sf, + Cc sup sf, + Ba sup sf
Pf298	243.1388	3.87	1	+ Sg sup sf
Pf300	445.2646	8.95	3	+ Sg sup sf, + Cc sup sf, + Ba sup sf
Pf301	387.1976	5.98	6	+ Sg sup sf, + Cc sup sf, + Ba sup sf, + Sg Pellet, + Cc Pellet, + Ba Pellet
Pf304	231.0816	4.46	2	+ Sg sup sf, + Cc sup sf
Pf307	298.1009	1.83	1	+ Sg sup sf
Pf308	418.2292	8.07	1	+ Sg sup sf
Pf309	255.1543	7.67	2	+ Sg sup sf, + Ba sup sf
Pf310	365.348	6.36	1	+ Ba sup sf

Pf311	263.1417	5.01	4	+ Cc sup sf, + Ba sup sf, + Cc Pellet, + Ba Pellet
Pf314	279.188	6.43	1	+ Cc sup sf
Pf315	296.1378	1.86	1	+ Cc sup sf
Pf316	496.1834	7.82	2	GMS FeX, M9 1% PO_4^{3-}
Pf317	331.2029	5.53	1	GMS FeX
Pf318	351.1692	5.61	1	GMS FeX
Pf319	339.1856	6.67	1	GMS MgX
Pf321	470.2255	5.83	1	M9 medium
Pf322	427.0937	5.26	1	M9 medium
Pf323	289.0578	4.87	2	M9 1% PO_4^{3-}, M9 medium
Pf324	348.2185	6.0	1	M9 medium
Pf325	459.0651	5.54	1	M9 medium
Pf326	311.1916	5.8	1	M9 medium
Pf327	659.139	3.67	1	M9 medium
Pf328	486.2024	6.18	2	M9 1% PO_4^{3-}, M9 medium
Pf329	491.1096	4.09	1	M9 medium
Pf330	691.1106	4.11	1	M9 medium
Pf331	509.1023	4.43	1	M9 medium
Pf332	428.2193	7.69	1	M9 1% PO_4^{3-}
Pf333	395.1362	6.39	1	M9 1% PO_4^{3-}
Pf334	435.1762	5.8	1	M9 1% PO_4^{3-}
Pf335	390.1625	7.35	1	M9 1% PO_4^{3-}
Pf336	405.1645	5.38	1	M9 1% PO_4^{3-}
Pf337	360.2178	6.1	1	M9 1% PO_4^{3-}
Pf338	227.1541	8.38	1	M9 1% PO_4^{3-}
Pf339	206.1022	4.97	1	M9 1% PO_4^{3-}
Pf340	448.2318	4.95	1	M9 1% PO_4^{3-}
Pf342	394.3477	8.38	1	M9 1% PO_4^{3-}
Pf343	398.1851	8.04	1	M9 1% PO_4^{3-}
Pf344	226.1465	6.0	1	M9 1% PO_4^{3-}
Pf345	336.0843	4.92	1	M9 1% PO_4^{3-}
Pf347	230.2108	6.2	1	M9 1% PO_4^{3-}
Pf348	387.1569	6.73	1	M9 1% PO_4^{3-}
Pf350	313.2025	6.42	1	+ Ba sup auto
Pf351	309.1455	5.63	1	+ Ba sup auto

Table S18. List of new mass features detected in extracts from *R. jostii* DSM44719 including mass feature ID, $m/z_{measured}$, retention time (t_R), number of activating conditions and activating conditions.

ID	**$m/z_{measured}$ [-]**	**t_R [min]**	**# of a.c.**	**activating conditions (a.c.)**
Rj1	271.1523	6.72	4	+ Sg sup auto, + Cc sup auto, + Sg Pellet, + Cc Pellet
Rj4	480.2788	4.26	1	+ Sg Pellet
Rj6	331.0206	5.04	1	+ Sg Pellet
Rj9	217.1016	4.75	4	LB Medium, + Pf sup auto, + Ba sup auto, + Cc Pellet

Rj10	220.1203	4.83	1	+ Ba sup auto
Rj11	254.1763	6.37	3	O_2-Lim., + Cc sup auto, + Cc Pellet
Rj13	250.1136	6.37	4	O_2-Lim., + Pf sup auto, + Ba sup auto, + Cc Pellet
Rj15	287.2589	9.57	1	GMS MgX
Rj16	269.2126	8.88	2	GMS, Landy Medium
Rj18	271.2283	9.34	1	Landy Medium
Rj20	257.2124	8.63	2	GMS, Landy Medium
Rj22	255.2332	8.76	3	GMS MgX, GMS, Landy Medium
Rj24	213.1855	7.18	4	GMS MgX, GMS FeX, GMS, Landy Medium
Rj26	227.2015	7.72	4	GMS MgX, GMS FeX, GMS, Landy Medium
Rj31	203.1395	3.84	1	+ Pf sup auto
Rj45	296.138	1.92	1	+ Pf Pellet
Rj47	319.2868	10,17	2	+ Pf Pellet, 23°C
Rj65	243.1308	3.91	1	+ Sg sup auto
Rj88	261.1225	4.08	1	NB Medium
Rj89	453.2682	3.79	1	NB Medium
Rj90	292.1063	5.71	1	NB Medium
Rj91	521.2382	4.03	1	NB Medium
Rj92	300.1362	3.96	1	NB Medium
Rj93	275.0838	4.28	1	NB Medium
Rj94	297.1359	4.94	1	NB Medium
Rj95	240.0687	6.17	1	O_2-Lim.
Rj98	237.2205	10.33	1	23°C
Rj120	285.1345	1.87	1	O_2-Lim.
Rj141	435.3022	8.1	1	M9 FeX
Rj142	414.2576	8.63	1	M9 1% PO_4^{3-}
Rj144	307.2184	7.01	1	M9 FeX
Rj146	354.2854	8.58	1	M9 1% PO_4^{3-}
Rj165	230.2121	6.23	1	M9 FeX, M9 1% PO_4^{3-}
Rj166	216.1963	5.75	1	M9 FeX
Rj185	240.233	7.16	1	Landy Medium
Rj214	342.235	4.53	1	0,5% EtOH
Rj215	328.218	4.26	1	0,5% EtOH
Rj217	318.1992	3.84	1	0,5% EtOH
Rj239	430.1826	10.4	1	Landy Medium
Rj240	250.1454	4.1	1	Landy Medium
Rj241	228.1038	8.07	1	Landy Medium
Rj242	303.2547	7.92	3	GMS MgX, GMS FeX, Landy Medium
Rj243	271.2279	7.45	2	GMS MgX, Landy Medium
Rj245	354.1506	10.18	1	Landy Medium
Rj246	456.1609	6.81	1	Landy Medium
Rj247	370.1819	9.25	1	Landy Medium
Rj248	393.1829	5.83	1	Landy Medium
Rj249	264.1609	4.94	1	Landy Medium
Rj250	475.1665	8.87	1	Landy Medium

Rj251	306.1502	8.88	1	Landy Medium
Rj252	287.2237	8.04	2	GMS FeX, Landy Medium
Rj253	267.1954	7.81	4	GMS MgX, GMS FeX, GMS, Landy Medium
Rj254	503.1978	9.09	1	Landy Medium
Rj255	254.2478	7.87	2	GMS FeX, Landy Medium
Rj256	463.2859	7.89	2	GMS FeX, GMS
Rj257	271.1878	7.33	3	GMS MgX, GMS FeX, GMS
Rj258	533.4829	10.81	2	GMS FeX, GMS
Rj259	239.1619	6.84	2	GMS FeX, GMS
Rj260	321.1475	4.46	2	GMS FeX, GMS
Rj261	281.2092	8.34	3	GMS MgX, GMS FeX, GMS
Rj262	293.2093	8.43	2	GMS FeX, GMS
Rj263	270.2415	7.53	2	GMS FeX, GMS
Rj264	263.158	10.49	2	GMS FeX, GMS
Rj265	241.265	8.34	1	GMS
Rj266	325.235	7.94	1	GMS
Rj267	245.0939	5.22	2	GMS FeX, GMS
Rj269	253.1411	5.48	2	GMS FeX, GMS
Rj270	235.2048	7.53	2	GMS FeX, GMS
Rj271	284.2574	7.99	2	GMS FeX, GMS
Rj272	253.2166	8.43	3	GMS MgX, GMS FeX, GMS
Rj273	267.1574	5.81	2	GMS FeX, GMS
Rj275	307.2246	8.92	1	GMS
Rj276	229.143	5.81	1	GMS
Rj277	275.2206	7.03	2	GMS FeX, GMS
Rj278	456.31	10.54	1	GMS
Rj279	393.2475	3.27	2	GMS FeX, GMS
Rj280	244.2266	6.96	2	GMS FeX, GMS
Rj281	311.2192	7.48	2	GMS MgX, GMS
Rj282	247.19	6.15	2	GMS FeX, GMS
Rj284	482.3627	8.88	1	GMS
Rj285	257.2117	6.47	1	GMS FeX
Rj286	265.1777	7.33	1	GMS FeX
Rj287	257.2111	7.03	1	GMS FeX
Rj288	241.2165	8.33	2	GMS MgX, GMS FeX
Rj289	226.2165	6.96	1	GMS FeX
Rj290	428.2183	8.06	1	GMS FeX
Rj291	279.1933	7.85	1	GMS FeX
Rj292	479.1797	10.59	1	GMS FeX
Rj293	295.1878	7.55	1	GMS FeX
Rj294	274.2367	6.29	1	GMS FeX
Rj295	319.2428	6.71	1	GMS FeX
Rj296	256.227	7.74	1	GMS FeX
Rj297	301.2369	7.04	1	GMS FeX
Rj298	272.258	7.89	1	GMS FeX

Rj299	275.2275	8.02	1	GMS FeX
Rj300	307.1883	7.26	1	GMS FeX
Rj301	275.2212	6.47	1	GMS FeX
Rj302	259.1918	7.06	1	GMS FeX
Rj303	245.0419	4.31	1	GMS FeX
Rj304	243.1948	6.05	1	GMS FeX
Rj305	256.2543	5.61	1	GMS FeX
Rj306	511.2551	6.37	1	GMS FeX
Rj307	325.2851	6.89	1	GMS FeX
Rj308	243.1951	6.57	1	GMS FeX
Rj309	233.1723	5.75	1	GMS FeX
Rj310	269.211	7.18	1	GMS FeX
Rj311	255.1949	8.26	1	GMS FeX
Rj312	291.1935	8.11	1	GMS FeX
Rj313	210.0218	4.19	1	GMS FeX
Rj314	375.1819	8.09	1	+ Sg sup sf
Rj315	243.1338	4.06	1	+ Sg sup sf
Rj316	443.2487	4.9	1	+ Sg sup sf
Rj317	227.1387	3.76	1	+ Sg sup sf
Rj318	507.2416	4.06	1	+ Sg sup sf
Rj319	255.2306	9.84	1	+ Sg sup sf
Rj320	385.1935	9.22	1	GMS MgX
Rj321	363.1419	7.06	1	GMS MgX
Rj322	277.1001	5.27	1	GMS MgX
Rj323	226.1489	8.93	1	GMS MgX
Rj324	348.1733	6.56	1	GMS MgX
Rj325	326.1915	6.59	1	GMS MgX
Rj326	329.1726	4.82	1	GMS MgX
Rj327	399.2094	8.93	1	GMS MgX
Rj328	281.0945	6.1	1	GMS MgX
Rj329	398.1896	8.26	1	GMS MgX
Rj330	381.183	7.96	1	GMS MgX
Rj331	262.11	5.33	1	GMS MgX
Rj332	243.1518	8.28	1	GMS MgX
Rj333	227.203	8.12	1	GMS MgX
Rj334	258.11541	5.87	1	GMS MgX
Rj336	298.2339	7.33	1	GMS MgX
Rj337	415.2042	9.25	1	GMS MgX
Rj338	255.0788	5.92	1	GMS MgX
Rj339	400.2045	6.79	1	GMS MgX
Rj340	259.229	8.63	1	GMS MgX
Rj341	334.2575	5.55	1	GMS MgX
Rj342	222.115	568	1	GMS MgX
Rj343	224.1293	6.35	1	GMS MgX

Table S19. List of new mass features detected in extracts from *S. griseochromogenes* DSM40499 including mass feature ID, $m/z_{measured}$, retention time (t_R), number of activating conditions and activating conditions.

ID	$m/z_{measured}$ [-]	t_R [min]	# of a.c.	activating conditions (a.c.)
Sg1	252.1864	4.06	1	TSB Medium
Sg3	236.1812	5.09	1	TSB Medium
Sg4	231.0645	7.04	1	TSB Medium
Sg9	998.5606	7.99	3	3% DMSO, 1% DMSO, CYH-Medium
Sg11	639.3028	5.09	1	CYH-Medium
Sg12	423.2058	8.36	1	CYH-Medium
Sg13	444.1734	3.84	1	CYH-Medium
Sg14	393.1806	6.56	1	Landy Medium
Sg16	425.1706	6.03	1	Landy Medium
Sg18	333.1586	6.56	1	Landy Medium
Sg19	393.1806	5.93	1	Landy Medium
Sg21	266.1162	6.4	1	Landy Medium
Sg23	305.2212	6.37	1	Landy Medium
Sg30	307.1419	6.88	1	Landy Medium
Sg38	259.1777	8.78	1	40°C
Sg39	208.0583	4.43	2	1% DMSO, 40°C
Sg42	209.042	5.34	1	40°C
Sg43	351.1784	6.44	1	40°C
Sg44	234.121	3.84	1	40°C
Sg45	414.1396	4.53	1	40°C
Sg47	447.0908	5.19	2	1% DMSO, 40°C
Sg53	365.1722	7.31	1	40°C
Sg54	235.1047	4.7	1	40°C
Sg68	325.2347	5.73	3	3% EtOH, 1% EtOH, SP-Medium
Sg71	269.066	4.83	1	3% EtOH
Sg72	297.0606	5.73	1	3% EtOH
Sg73	410.1465	7.07	1	3% EtOH
Sg74	532.2989	7.19	2	3% EtOH, 3% ACN
Sg77	301.217	5.95	2	3% EtOH, O2-Lim.
Sg84	359.1568	6.6	3	GMS FeX, GMS Medium, O2-Lim.
Sg85	386.3099	6.3	1	O2-Lim.
Sg87	420.2615	4.99	1	O2-Lim.
Sg89	379.184	5.02	1	GMS Medium
Sg90	362.2402	4.85	1	GMS Medium
Sg91	325.2652	5.04	1	GMS Medium
Sg92	378.1779	5.04	1	GMS Medium
Sg94	339.2226	10.12	1	GMS Medium
Sg96	337.2226	10.12	1	GMS FeX
Sg97	336.1746	4.75	1	GMS FeX

Sg101	290.2841	7.87	1	GMS FeX
Sg103	256.1512	8.53	1	GMS FeX
Sg104	312.37	8.64	1	GMS FeX
Sg106	418.3013	10.12	1	GMS FeX
Sg107	369.2497	10.12	1	GMS FeX
Sg109	353.219	9.69	1	GMS FeX
Sg115	379.2431	6.49	2	M9 FeX, M9 1% PO_4^{3-}
Sg117	587.3468	4.53	1	M9 FeX
Sg118	295.1597	4.89	2	M9 FeX, M9 Medium Cyclo-(Phe-Phe)
Sg119	583.3485	4.36	1	M9 FeX
Sg120	823.4818	5.46	1	M9 FeX
Sg121	243.1311	4.26	1	SP-Medium
Sg130	585.3593	4.94	2	3% DMSO, 1% DMSO
Sg134	342.3789	8.44	1	M9 1% PO_4^{3-}
Sg135	430.1457	7.0	1	M9 FeX
Sg143	340.3619	8.17	1	M9 1% PO_4^{3-}
Sg145	257.109	5.61	1	0,5% ACN
Sg146	208.0661	4.04	1	M9 1% PO_4^{3-}
Sg147	348.2248	6.05	1	M9 1% PO_4^{3-}
Sg148	428.2258	7.68	1	M9 1% PO_4^{3-}
Sg149	317.1929	6.48	1	M9 1% PO_4^{3-}
Sg150	395.1427	6.39	1	M9 1% PO_4^{3-}
Sg151	327.1753	6.39	1	M9 1% PO_4^{3-}
Sg152	515.4181	9.61	1	M9 1% PO_4^{3-}
Sg153	259.1877	8.32	1	M9 1% PO_4^{3-}
Sg154	390.1706	7.36	1	M9 1% PO_4^{3-}
Sg155	345.225	8.27	1	M9 1% PO_4^{3-}
Sg156	217.1394	6.26	1	M9 1% PO_4^{3-}
Sg157	289.0644	4.94	1	M9 1% PO_4^{3-}
Sg158	269.1721	9.0	1	M9 1% PO_4^{3-}
Sg159	226.1524	6.05	1	M9 1% PO_4^{3-}
Sg160	388.1754	5.78	1	M9 1% PO_4^{3-}
Sg161	415.1217	4.04	1	M9 1% PO_4^{3-}
Sg163	275.1451	4.33	1	M9 1% PO_4^{3-}
Sg164	415.1316	4.33	1	M9 1% PO_4^{3-}
Sg165	303.1781	6.63	1	M9 1% PO_4^{3-}
Sg167	386.1801	6.71	1	M9 1% PO_4^{3-}
Sg168	499.2702	6.51	1	M9 1% PO_4^{3-}
Sg172	464.2239	6.12	1	M9 1% PO_4^{3-}
Sg175	269.1178	5.24	1	M9 1% PO_4^{3-}
Sg176	386.1798	6.75	1	M9 1% PO_4^{3-}
Sg181	331.2088	7.78	1	M9 1% PO_4^{3-}
Sg184	415.1232	4.11	1	M9 1% PO_4^{3-}
Sg185	311.1457	4.84	1	M9 1% PO_4^{3-} Cyclo-(Phe-Tyr)
Sg187	573.3914	5.53	1	M9 1% PO_4^{3-}

Sg198	573.3304	4.45	1	M9 FeX
Sg199	599.345	4.87	2	M9 FeX, + Pf sup auto
Sg201	393.2592	7.15	1	M9 FeX
Sg203	421.2689	7.8	1	M9 FeX
Sg206	471.2689	10.3	1	M9 FeX
Sg207	276.0933	5.11	1	M9 FeX
Sg214	363.2865	8.56	1	M9 FeX
Sg217	328.1495	7.65	1	GMS MgX
Sg220	220.1151	1.26	1	1% DMSO
Sg221	458.3749	10.03	1	1% DMSO
Sg222	532.2887	7.59	1	1% DMSO
Sg224	225.1171	5.22	1	1% DMSO
Sg227	584.3468	4.94	1	1% DMSO
Sg228	273.177	5.34	1	1% DMSO
Sg242	320.252	9.96	1	3% DMSO
Sg251	243.1386	3.86	2	0,5% ACN, + Rj sup sf
Sg252	836.6292	10.13	2	+ Ba Pellet
Sg253	354.3058	9.86	1	0,5% ACN
Sg255	266.1126	4.78	3	0,5% ACN, + Rj sup sf, + Ba sup sf
Sg257	457.4401	7.04	1	+ Ba Pellet
Sg258	431.4251	6.86	1	+ Ba Pellet
Sg264	425.2848	5.26	1	3% ACN
Sg272	240.2293	7.57	1	3% Tol
Sg273	230.2091	6.59	1	3% Tol
Sg274	244.2246	7.08	1	3% Tol
Sg275	272.2555	8.34	1	3% Tol
Sg276	267.2289	9.09	1	3% Tol
Sg277	216.1934	6.1	1	3% Tol
Sg278	255.2291	9.0	1	3% Tol
Sg279	270.2399	6.79	1	3% Tol
Sg280	264.2292	6.44	1	3% Tol
Sg285	284.2557	8.16	1	3% Tol
Sg286	270.2403	6.22	1	3% Tol
Sg287	264.2299	7.74	1	3% Tol
Sg288	228.1931	5.53	1	3% Tol
Sg290	271.2241	8.8	1	3% Tol
Sg291	284.2196	7.04	1	3% Tol
Sg293	266.2409/ 282.2395	6.5	1	3% Tol
Sg294	253.2133	8.53	1	3% Tol
Sg296	301.2348	8.33	1	3% Tol
Sg297	300.2499	6.69	1	3% Tol
Sg299	284.2197	6.3	1	3% Tol
Sg302	252.2294	7.69	1	3% Tol
Sg308	271.2352	6.72	1	3% Tol

Sg309	266.2092	7.84	1	3% Tol
Sg310	254.2449	8.06	1	3% Tol
Sg312	300.2512	7.38	1	3% Tol
Sg335	1030.578	7.15	1	+ Pf Pellet
Sg336	279.138	3.28	6	+ Pf sup auto, + Cc sup auto, + Rj Pellet, + Pf Pellet, + Ba Pellet, + Cc Pellet
Sg337	219.1166	4.04	2	+ Rj Pellet, + Pf Pellet
Sg340	1040.741	9.93	1	+ Ba Pellet
Sg341	597.3904	5.6	3	+ Rj Pellet, + Ba Pellet, + Cc Pellet
Sg342	414.2611	8.31	1	+ Ba Pellet
Sg345	252.1871	3.73	2	+ Ba sup sf, + Rj Pellet
Sg346	401.343	3.73	1	+ Rj Pellet
Sg352	434,.3177	5.12	1	+ Rj sup sf
Sg353	420.3018	4.78	1	+ Rj sup sf
Sg354	290.1655	4.78	1	+ Rj sup sf
Sg357	763.4162	4.63	1	+ Cc sup sf
Sg358	545.3635	4.2	1	+ Ba sup auto
Sg359	487.3471	6.78	1	+ Ba sup auto
Sg363	205.0963	3.18	1	+ Pf sup auto
Sg364	615.3323	5.77	1	+ Pf sup auto
Sg366	229.0996	3.86	1	+ Rj sup auto
Sg367	258.132	5.82	1	+ Rj sup auto
Sg368	201.1228	2.25	1	+ Rj sup auto

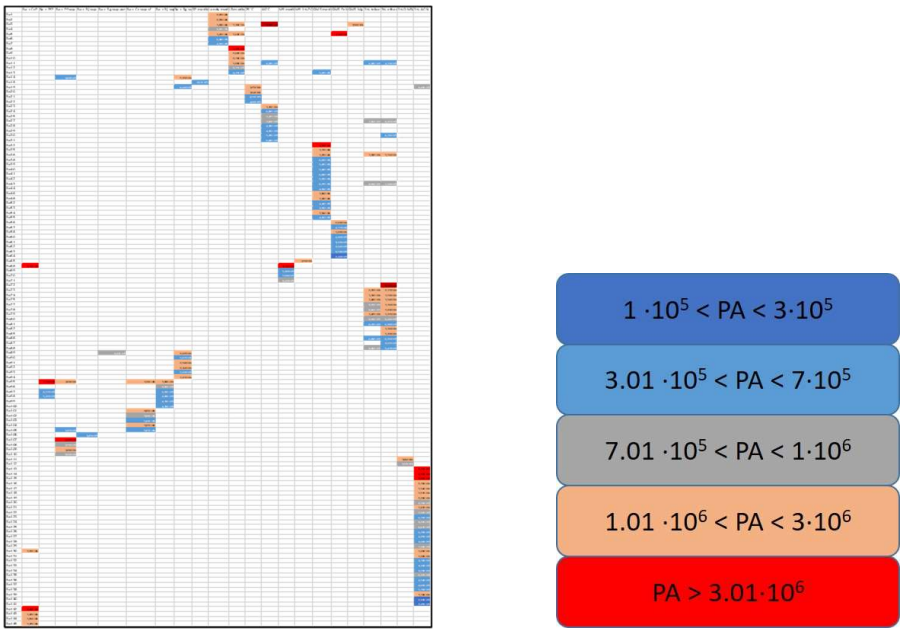
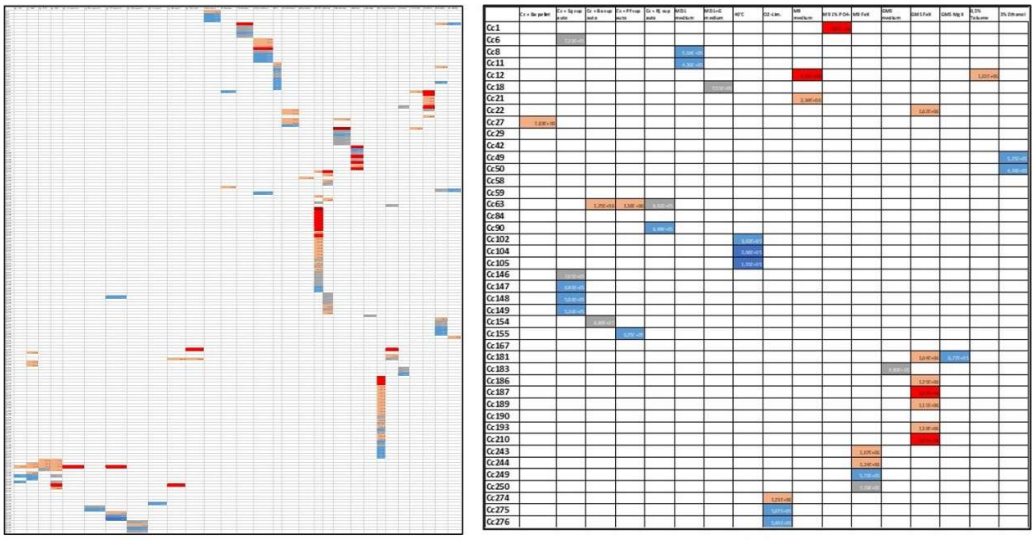


Figure S17. Heat map for new mass features of *B. amyloliquefaciens* DSM7 and utilized color code. PA = peak area. Rows = mass features, columns = producing conditions. Conditions which did not provoke any new mass features are not shown in the heat map. See separate excel file for detailed heat map.



(**a**) (**b**)

Figure 18. (**a**) Heat map of *S. griseochromogenes* DSM40499; (**b**) Heat map of *C. coralloides* DSM2259. Rows = mass features, columns = producing conditions. Conditions which did not provoke any new mass features are not shown in the heat map. See separate excel file for detailed heat map.

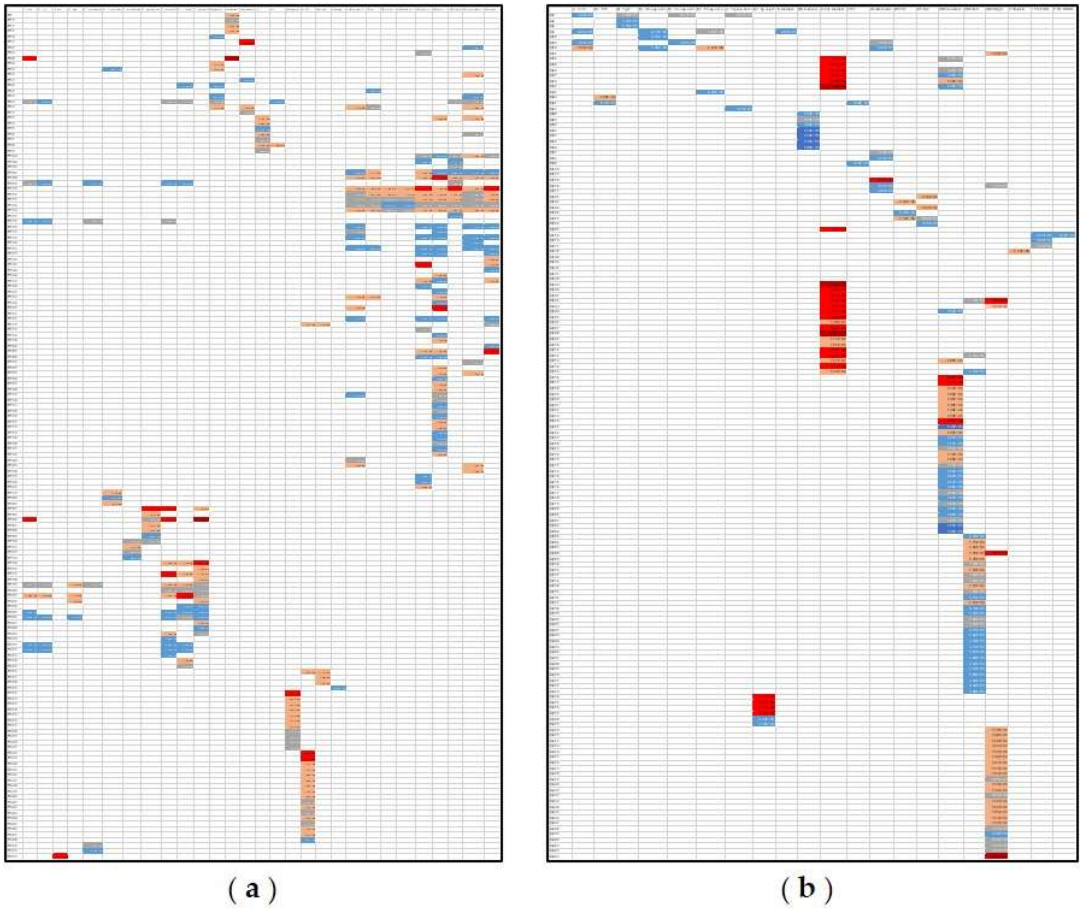


Figure 19. (**a**) Heat map of *P. fallax* HKI727; (**b**) Heat map of *R. jostii* DSM44719. Rows = mass features, columns = producing conditions. Conditions which did not provoke any new mass features are not shown in the heat map. See separate excel file for detailed heat map.

Table S20. Overview of new mass features, proposed compounds and corresponding producing conditions from selected strains.

ID	Proposed compound	producing conditions
Ba3	cyclo(Tyr-Pro)	Landy medium, LB medium, 40°C, Mg^{2+}-limited GMS medium (GMS MgX)
Ba8	iturin A-4	LB medium
Ba9	iturin A-6	LB medium
Ba10	iturin A-8	LB medium
Ba58	bacillibactin	$Fe3^{+}$-limited GMS medium (GMS FeX)
Cc42	nocardamin	addition of sterile-filtered supernatant of *B. amyloliquefaciens*, *R. jostii* and *S. griseochromogenes*

		(separately)
Pf336	myxochelin A	M9 medium with 1% PO_4^{3-}
Sg117	desmethyl enyl nocardamin	Fe^{3+}-limited GMS medium (GMS FeX)
Sg130	desferrioxamine B + Al	addition of 1% and 3% DMSO

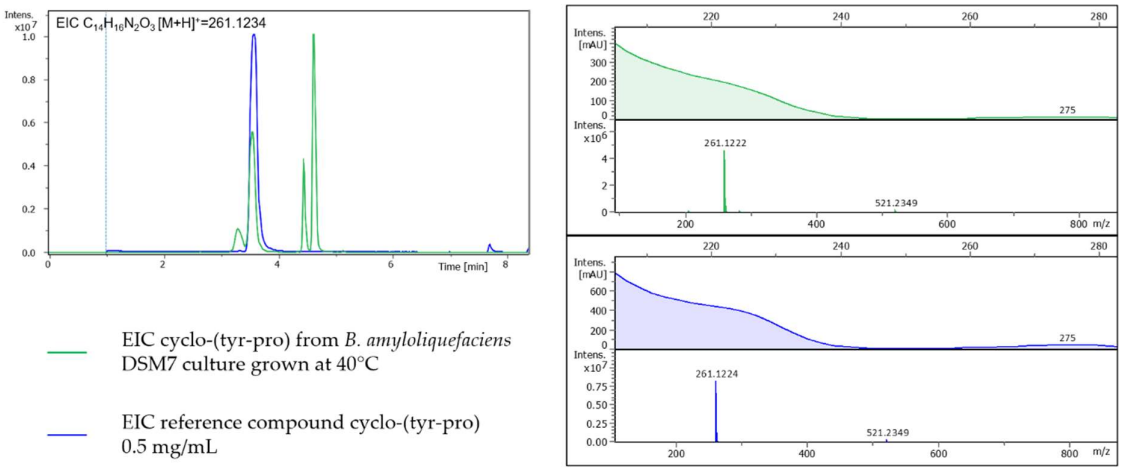


Figure S20. Comparison of Extracted Ion Chromatograms (EICs) and MS spectra of cyclo-(tyr-pro) reference compound (blue) and cyclo-(tyr-pro) in *B. amyloliquefaciens* sample grown at 40°C (green).

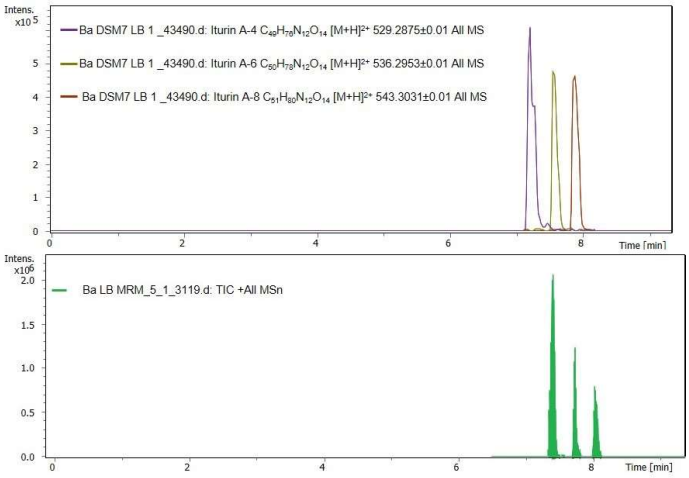


Figure S21. Extracted Ion Chromatograms of putative iturins A4, A-6 and A-8 from *B. amyloliquefaciens* sample grown on LB medium and Total Ion Chromatogram of MS2-experiment from the same sample.

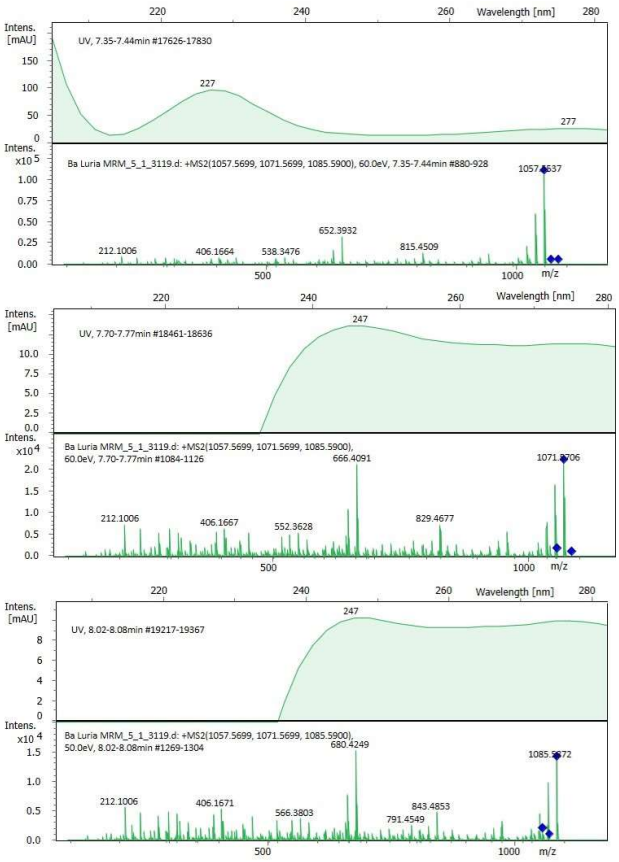


Figure S22. MS2-spectra of putative iturin A-4, A-6 and A-8 masses in *B. amyloliquefaciens* sample grown on LB medium.

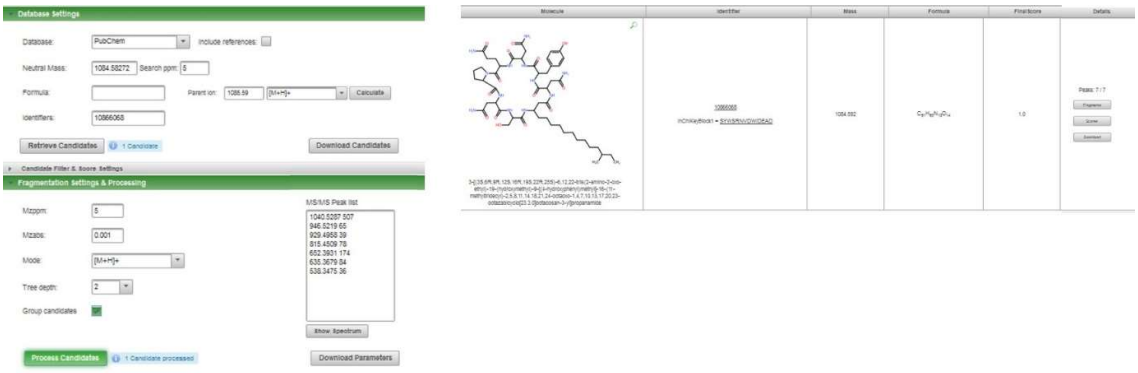


Figure S23. MetFrag settings used for the verification of MS2-fragments of putative iturin A-8 with corresponding PubChem entry #10866068

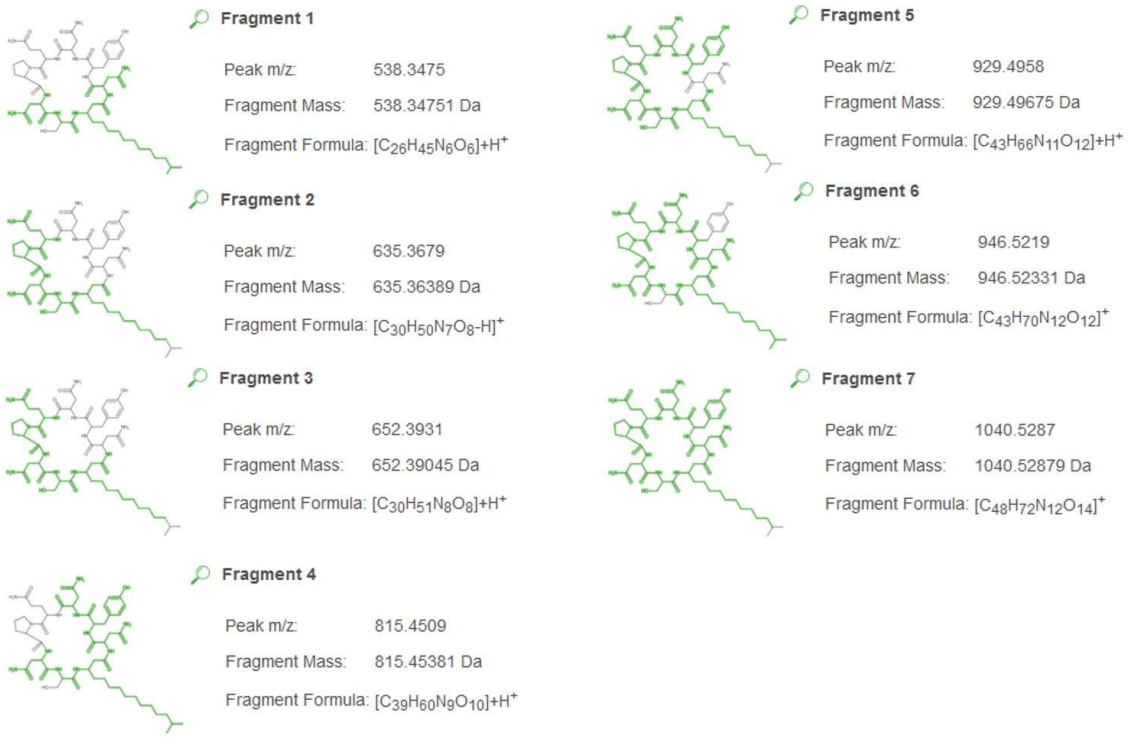


Figure S24. MetFrag explanations of fragments obtained through MS2-analysis of mass 1085.59 (putative iturin A-8) in *B. amyloliquefaciens* DSM7 sample grown on LB medium.

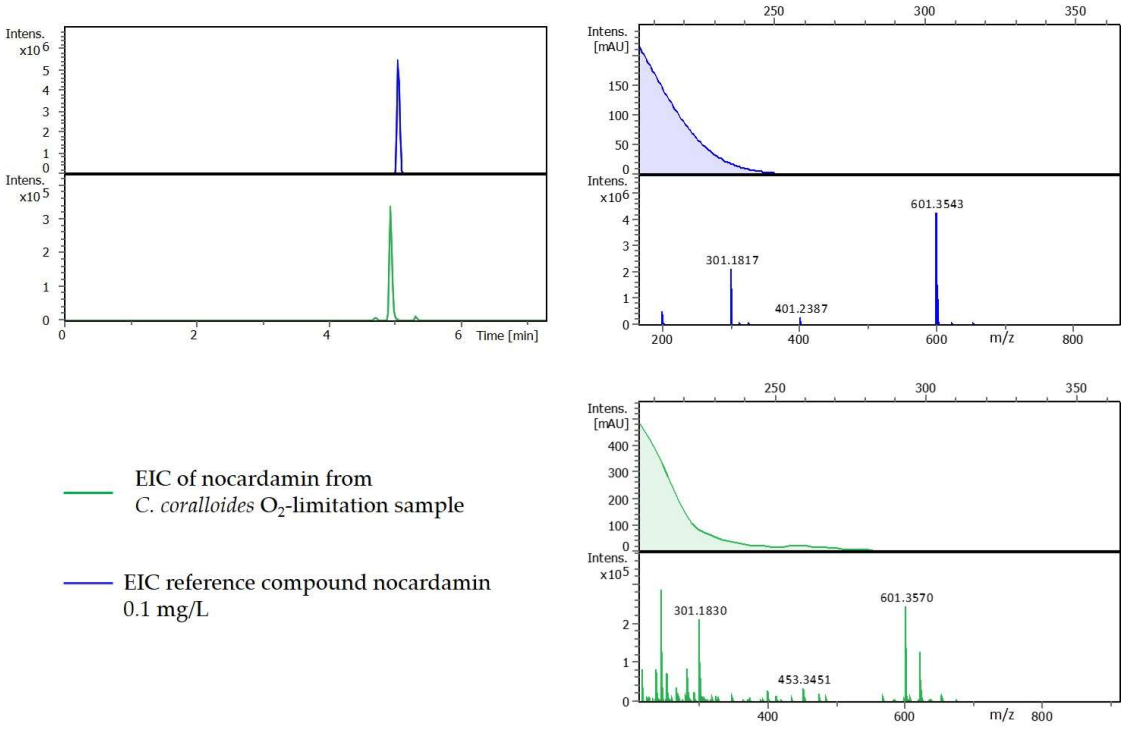


Figure S25. Comparison of Extracted Ion Chromatograms (EICs) and MS spectra of nocardamin reference compound (blue) and nocardamin in *C.coralloides* sample grown under O_2-limitation (green).

Figure 26. Results of GNPS search of desmethyl enyl nocardamin MS2-spectrum (mirror match and overview).

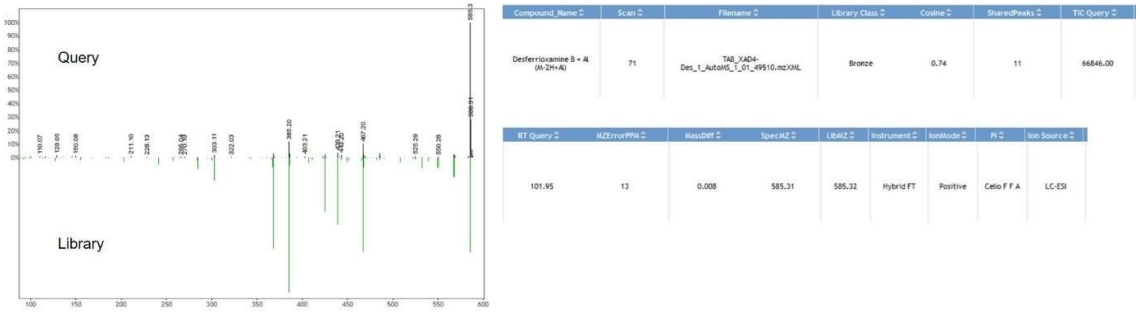


Figure S27. Results of GNPS search of desferrioxamine B + Al MS2-spectrum (mirror match and overview).