SUPPLEMENTARY MATERIAL

Binary co-culture selection from marine-derived microorganisms for differential production of specialized metabolites

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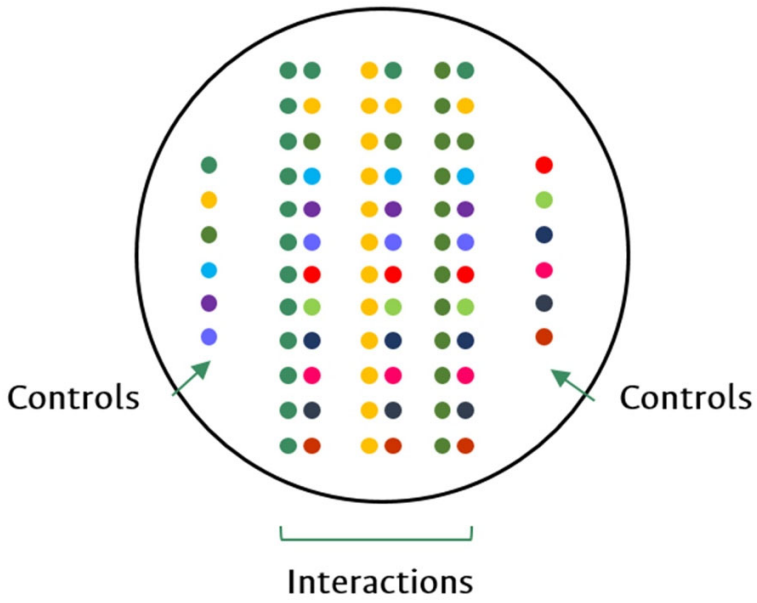

Figure 1S. *Scheme of the binary interaction assay used a selection tool to evaluate bacteria-bacteria distance interactions. This methodology was adapted from the proposal by Seyedsayamdost and collaborators.*[29]

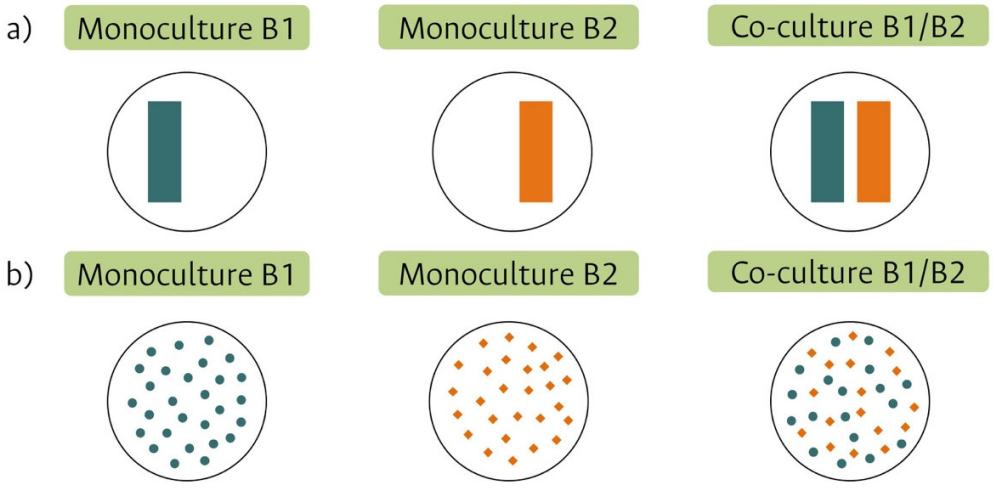

Figure 2S. *Bacteria-bacteria co-cultures: a) distance interaction, b) contact interaction.*

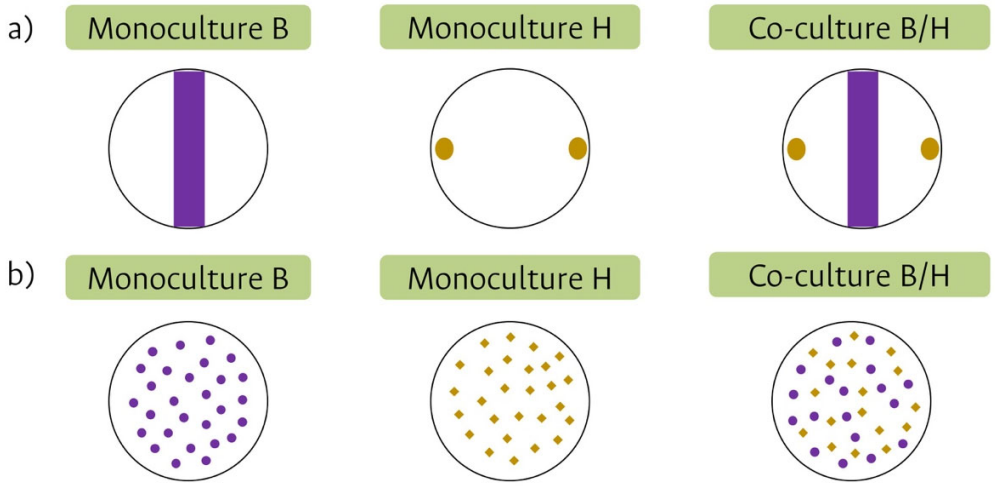

Figure 3S. *Bacteria-fungus co-cultures: a) distance interaction, b) contact interaction.*

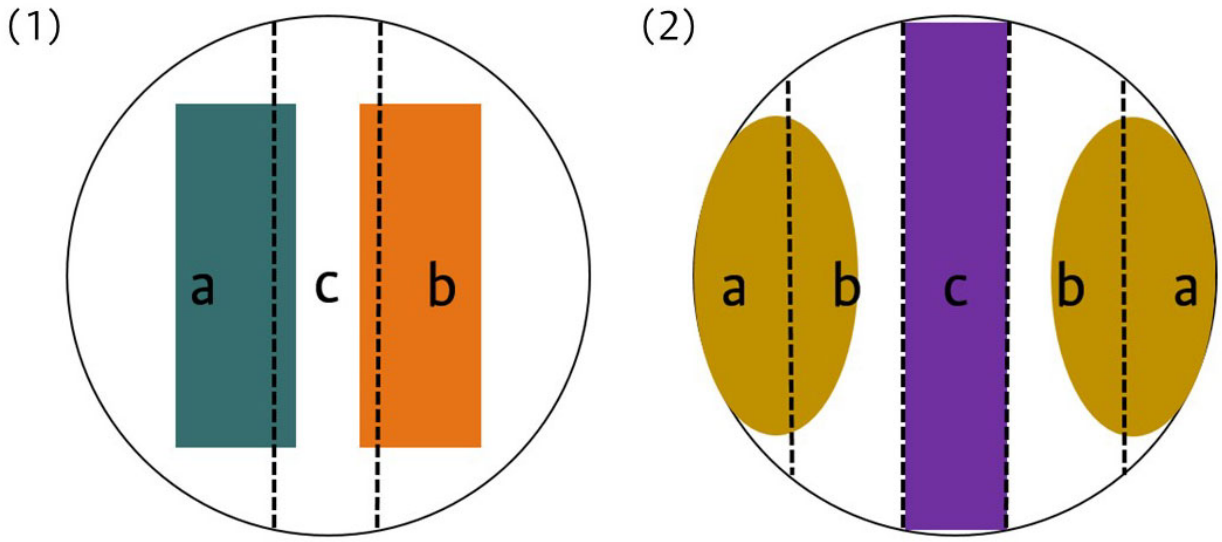

Figure 4S. *Defined zones for obtaining organic extracts in distance assays between (1) bacteria-bacteria: (a) Zone of bacteria 1, (b) Zone of bacteria 2 and (c) Zone of interaction; and (2) bacteria-fungus: (a) Zone of fungus, (b) Zone of interaction, (c) Zone of bacteria.*

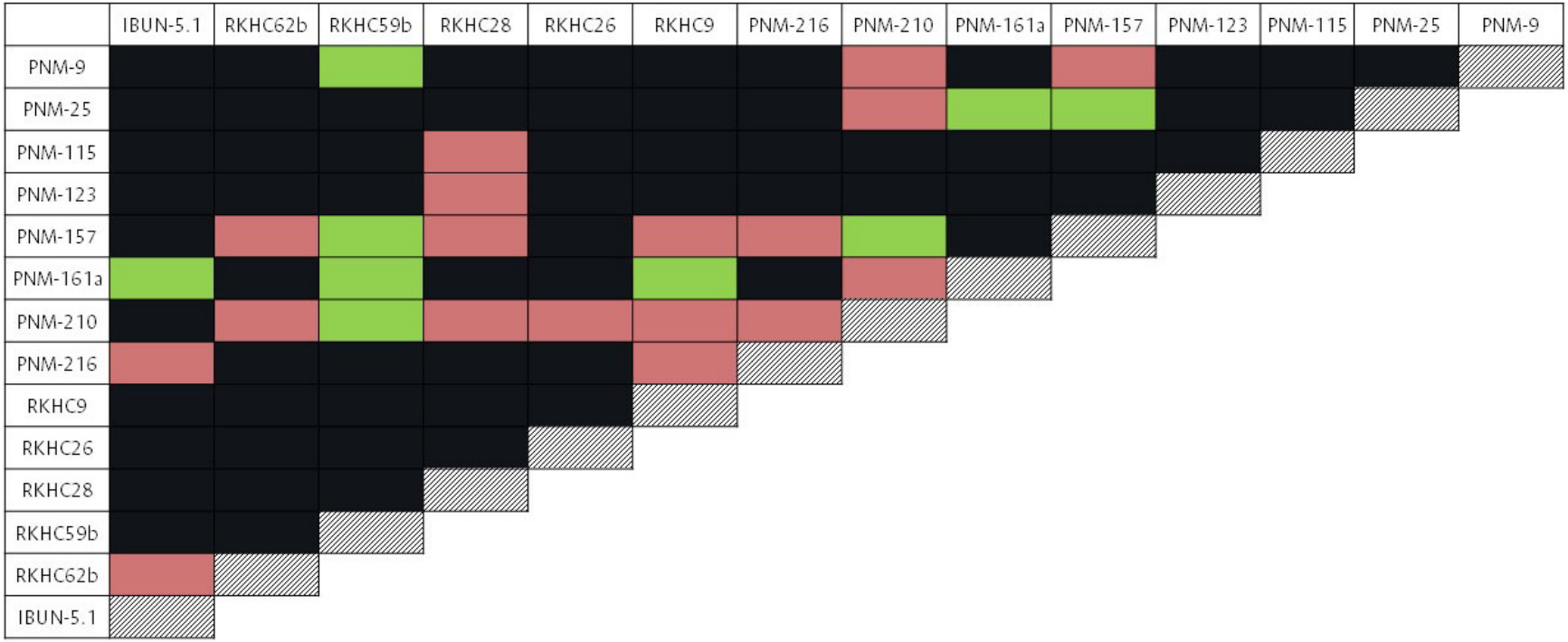

Figure 5S. *Summary of phenotypic changes observed in the 91 bacteria-bacteria interactions evaluated in a distance assay. (■): There was no visible interaction, (■): Growth inhibition, (■): Other types of interaction such as changes in pigmentation, sporulation and macroscopic morphology.*

Table 1S. Summary of bacteria-bacteria co-cultures evaluated by contact assay. It includes the criterion of pairing and if there was a change in the metabolic profile with respect to the corresponding monocultures

Binary co-culture		**Criterion of pairing**	**Phenotypic change**	**Change**	
Isolate	**Isolate**			**^{1}H NMR**	**HPLC-DAD**
PNM-9	**PNM-161a**	Genus *Streptomyces*	—	-	—
PNM-9	**PNM-216**	Ecological criteria	—	—	—
PNM-9	**RKHC-26**	Mycolic acid containing bacteria	—	—	—
PNM-9	**IBUN-5.1**	Genus *Streptomyces*	—	—	—
PNM-161a	**RKHC-26**	Mycolic acid containing bacteria	—	+	—
PNM-161a	**IBUN-5.1**	Genus *Streptomyces*	—	—	—
RKHC-9	RKHC-26	Ecological criteria	No evidence of RKHC-26 growth	—	—
RKHC-9	RKHC-28	Ecological criteria	No evidence of RKHC-26 growth	—	—
RKHC-9	**RKHC-62b**	Ecological criteria	—	—	—
RKHC-26	**RKHC-28**	Ecological criteria	—	—	—
RKHC-26	**RKHC-62b**	Ecological criteria	—	—	—
RKHC-26	IBUN-5.1	Mycolic acid containing bacteria	No evidence of RKHC-26 growth	—	—
RKHC-28	**RKHC-62b**	Ecological criteria	—	—	—

For each co-culture those isolates that survived until the end of the fermentation time are highlighted in bold. (+): A change was observed compared to the corresponding monocultures (-): No change was observed compared to the corresponding monocultures.

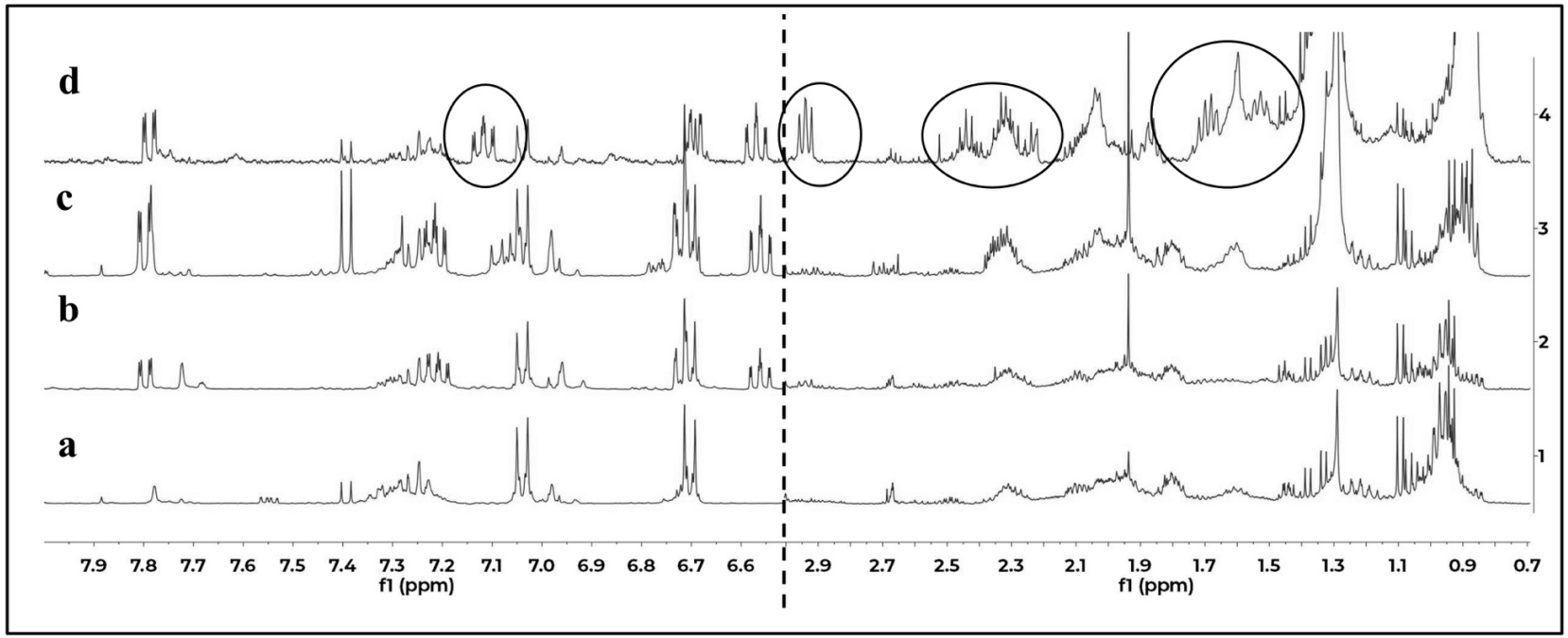

Figure 6S. *Comparison of ^{1}H NMR spectra for organic extracts of: (a) culture media LB, (b) monoculture of Streptomyces sp. PNM-161a, (c) monoculture of Rhodococcus sp. RKHC-26 and (d) co-culture*