Supplementary material

Table S1. Composition of the artificial saline medium compared with Laguna Rosa water based on ICP analysis. Salt amounts used for medium preparation, resulting ion concentrations in the artificial medium, and the corresponding concentration ratios between Laguna Rosa water and the artificial medium are shown.

Salt	**g/L**	**Ion**	**Artificial medium (g/L)**	**Ratio (2/1)**
NaCl	220.00	Na^+	87.08	3.66
KCl	100.00	K^+	5.51	3.70
$MgSO_4 \cdot 7H_2O$	70.00	Mg^{2+}	13.83	3.73
$MgCl_2 \cdot 6H_2O$	58.00	Ca^{2+}	2.20	3.72
$CaCl_2 \cdot 2H_2O$	8.00	B^{3+}	6.10×10^{-2}	3.71
$NaHCO_3$	1.80	Li^+	3.01×10^{-3}	3.76
KBr	0.80	Rb^+	2.00×10^{-3}	3.79
H_3BO_3	0.35	Cl^-	162.52	—
LiCl	1.80×10^{-2}	SO_4^{2-}	27.12	—
RbCl	3.00×10^{-3}	HCO_3^-	1.31	—
—	—	Br^-	0.54	—

Table S2. Effect of different metal concentrations on the growth kinetics of the selected isolates.

K_2CrO_4			$Pb(NO_3)_2$			$NaAsO_2$		
Marinobacter adhaerens								
[mM]	**μ (h^{-1})**	**t_d (h)**	**[mM]**	**μ (h^{-1})**	**t_d (h)**	**[mM]**	**μ (h^{-1})**	**t_d (h)**
0	0.13±0.01	5.34	0	0.13±0.01	5.34	0	0.13±0.01	5.34
1	0.13±0.01	5.49	1	0.15±0.03	4.62	2	0.015±0.001	44.24
Marinococcus halophilus								
0	0.10±0.01	6.62	0	0.10±0.01	6.62	0	0.10±0.01	6.62
2	0.034±0.005	14.4	1	0.09±0.02	7.52	2	0.050±0.004	13.67
Halophilic bacterium								
0	0.09±0.01	7.34	0	0.09±0.01	7.34	0	0.09±0.01	7.34
1	0.09±0.05	7.47	1	0.09±0.05	7.69	2	-	-
***Halomonas* sp.**								
0	0.12±0.01	5.62	0	0.12±0.01	5.62	0	0.12±0.01	5.62
1	0.11±0.01	6.22	1	0.11±0.03	6.14	2	0.010±0.002	20.21
Halomonas smyrniensis								
0	0.065±0.007	10.59	-	-	-	-	-	-
15	0.056±0.007	12.26	-	-	-	-	-	-
20	0.055±0.007	12.49	-	-	-	-	-	-
25	0.050±0.006	13.72	-	-	-	-	-	-
Haloarcula sinaiiensis								
0	0.035±0.006	19.34	0	0.035±0.006	19.34	0	0.035±0.006	19.34
1	0.0100±0.0004	63.45	1	0.0420±0.0001	16.22	0.5	0.048±0.008	14.16
2	0.0030±0.0005	200.28	2	0.0310±0.0003	21.95	0.75	0.049±0.008	13.96
3	0.0030±0.0004	207.31	3	0.0680±0.0001	10.18	1	0.050±0.001	13.89
4	0.0010±0.0004	472.75	4	0.0860±0.0002	8	1.5	0.0010±0.0004	636.39
Halorubrum saccharovorum								
0	0.04±0.01	17.15	0	0.04±0.01	17.15	0	0.04±0.01	17.15
1	0.018±0.003	37.7	1	0.12±0.02	6.01	0.5	0.031±0.008	21.73
2	0.020±0.003	34.52	2	0.07±0.02	9.9	0.75	0.019±0.004	34.89
3	0.010±0.001	63.43	3	0.11±0.01	6.34	1	0.012±0.004	56.37
4	0.008±0.000	86.64	4	0.07±0.02	9.71	1.5	0.009±0.002	72.92

Table S3. Reported metal tolerance and resistance of selected halophilic and halotolerant microorganisms to chromium, arsenic, lithium, and lead.

Genus	Cr(VI)	As(III)	Li^+	Pb(II)	References
Halomonas	1-67 mM	8-40 mM	ND	4-8 mM	[58,69]
Marinobacter	ND	3 mM	ND	ND	[61]
Marinococcus	1 mM	1mM	ND	2.5 mM	[28]
Haloarcula	2.5 mM	ND	Up to 1M	Tolerance reported, highly variable	[24,27]
Halorubrum	1-2 mM	ND	Up to 1M	Tolerance reported, highly variable	[24,27]

ND: no specific quantitative resistance value identified in the reviewed literature.