

Supplementary Material for

Metabolite profiling reveals new insight into the cold adaptation of the green macroalga *Ulva* (Chlorophyta) isolated from the Mediterranean and Antarctic regions

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Table S1: Identification of 66 features in *U. mutabilis* and biomarkers for changes in the metabolism upon the warm-cold temperature shift.

Feature #	<i>m/z</i> [M+H] ⁺ measured	RT [min]	Compound	Formula	<i>P</i> -value	Up/down regulated at 2°C
1	135.0474	8.16	DMSF	C5H10O2S	3.70E-04	up
2	116.0705	6.54	L-Proline	C5H9NO2	9.91E-06	up
3	118.0862	6.29	Glycine betaine	C5H11NO2	7.37E-04	up
4	85.0284	7.02		C4H4O2	6.30E-03	up
5	127.0389	7.03		C6H6O3	3.42E-03	up
6	130.0499	7.99		C5H7NO3		
7	163.0601	7.02		C6H10O5	3.62E-04	up
8	145.0495	7.02		C6H8O4	3.73E-04	up
9	162.1123	6.58		C7H15NO3	2.72E-02	up
10	97.0284	7.03		C5H4O2	4.84E-03	up
11	180.0866	7.02		C6H13NO5	2.54E-03	up
12	99.0440	7.02		C5H6O2	6.93E-04	up
13	90.0549	7.65		C3H7NO2	1.58E-02	up
14	189.1233	7.24		C8H16N2O3	1.52E-02	up
15	88.0757	4.90		C4H9NO	1.91E-02	up
16	149.0631	6.49		C6H12O2S	1.63E-03	up
17	147.0763	7.99		C5H10N2O3		
18	147.1128	11.10		C6H14N2O2	6.08E-03	up
19	110.0270	7.39		C2H7NO2S	1.13E-02	up
20	123.0553	8.58		C6H6N2O	1.65E-03	up
21	130.1590	2.90		C8H19N		
22	122.0964	3.25		C8H11N		
23	105.0699	6.34		C8H8		
24	132.1019	5.87		C6H13NO2		
25	101.0709	6.88		C4H8N2O		
26	138.0913	3.25		C8H11NO		
27	130.0863	6.40		C6H11NO2	1.10E-06	down
28	80.0494	2.13		C5H5 N		
29	167.0927	4.76		C7H10N4O		
30	83.0603	4.08		C4H6N2		
31	87.0917	3.99		C4H10N2		
32	103.0865	7.52		C4H10N2O		
33	117.0659	3.78		C4H8N2O2		
34	115.0865	3.62		C5H10N2O		
35	188.0706	5.83		C1 H9NO2		
36	156.1384	3.58		C9H17NO		
37	104.1069	7.42		C5H13NO		
38	159.0764	3.65		C6H10N2O3		
39	175.1157	6.94		C9H18OS		
40	144.0808	6.36		C10H9N		
41	143.0815	7.08		C6H10N2O2		
42	154.1226	3.08		C9H15NO		
43	87.0553	4.87		C3H6N2O		
44	108.0807	3.41		C7H9N		
45	140.0819	4.74		C6H9N3O		
46	117.1023	5.22		C5H12N2O		
47	145.0718	7.72		C4H8N4O2		
48	120.0655	7.96		C4H9NO3		
49	183.0916	3.12		C12H10N2		
50	182.0812	5.41		C9H11NO3	2.00E-03	down
51	145.1461	10.77		C8H18NO		
52	128.1182	7.44		C6H13N3		
53	169.0761	3.25		C11H8N2		

54	139.0978	7.76	C6H10N4
55	90.0913	7.45	C4H11NO
56	146.1175	3.40	C7H15NO2
57	127.0726	7.48	C3H6N6
58	121.0318	6.33	C4H8O2S
59	173.0921	3.35	C7H12N2O3
60	175.1078	7.27	C7H14N2O3
61	145.1084	7.43	C5H12N4O
62	160.0969	4.73	C7H13NO3
63	150.1124	7.46	C6H15NO3
64	160.1331	8.61	C8H17NO2
65	102.0914	7.43	C5H11NO
66	174.1488	8.61	C9H19NO2