

Supplementary Materials

Table S1. Terpenoidal metabolites isolated from the soft coral *Sarcophyton trocheliophorum*.

No.	Name	Locality	Bioassay	Class	Ref.
1	trocheliophorin	Kurside Island, India	-	trocheliophorane sesquiterpenoid	[15]
2	palustrol	Jeddah, Saudi Arabia	antibacterial, antifungal, antitumor, antifeedant	aromadendrane sesquiterpenoid	[16]
3	alloaromadendrene	Hurgada, Egypt	-	aromadendrane sesquiterpenoid	[17]
4	β -elemene	Hurgada, Egypt	-	elemene sesquiterpenoid	[17]
5	<i>trans</i> -caryophyllene	Hurgada, Egypt	-	caryophyllane sesquiterpenoid	[17]
6	bisabolene	Hurgada, Egypt	-	bisabolane sesquiterpenoid	[17]
7	trocheliophorol	Seychelles Islands, Indian Ocean	-	cembrane diterpenoid	[3] [18]
		Orpheus Island, Australia	antifeedant	cembrane diterpenoid	[20]
8	thunbergol	Orpheus Island, Australia	antifeedant	cembrane diterpenoid	[20]
		Orpheus Island, Australia	antifeedant	cembrane diterpenoid	[20]
9	7,8-epoxy-1 <i>E</i> ,3 <i>E</i> ,11 <i>E</i> -cembratriene-15-ol	Pulau Hantu, Singapore	cytotoxic	cembrane diterpenoid	[8]
10	13 <i>S</i> -hydroxy-(-)-neocembrene	Seychelles Islands, Indian Ocean	cytotoxic	cembrane diterpenoid	[21]
11	13 <i>S</i> -hydroxy-11,12-epoxy-(-)-neocembrene	Seychelles Islands, Indian Ocean	cytotoxic	cembrane diterpenoid	[21] [22]
12	neocembrene	Seychelles Islands, Indian Ocean	cytotoxic	cembrane diterpenoid	[21] [22]
13	(7 <i>R</i> ,8 <i>R</i> ,14 <i>S</i> ,1 <i>E</i> ,3 <i>E</i> ,11 <i>E</i>)-7,8-epoxycembra-1,3,11-trien-14-ol	Orpheus Island, Australia	cytotoxic	cembrane diterpenoid	[23]
14	(7 <i>R</i> ,8 <i>R</i> ,14 <i>S</i> ,1 <i>E</i> ,3 <i>E</i> ,11 <i>E</i>)-14-acetoxy-7,8-epoxycembra-1,3,11-triene	Orpheus Island, Australia	cytotoxic	cembrane diterpenoid	[23]
15	(7 <i>R</i> ,14 <i>S</i> ,1 <i>E</i> ,3 <i>E</i> ,8 <i>E</i> ,11 <i>E</i>)-cembra-1,3,8,11-tetraene-7,14-diol	Orpheus Island, Australia	cytotoxic	cembrane diterpenoid	[23]
		Pulau Hantu, Singapore	cytotoxic	cembrane diterpenoid	[8]
16	isoneocembrene/cembrene-C	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[25]
		Jeddah, Saudi Arabia	antibacterial, antifungal, antifeedant, cytotoxic	cembrane diterpenoid	[16]
17	7,8-epoxy-1 <i>E</i> ,3 <i>E</i> ,11 <i>E</i> -cembratriene	Pulau Hantu, Singapore	cytotoxic	cembrane diterpenoid	[8]

No.	Name	Locality	Bioassay	Class	Ref.
18	yalongene A	Hainan Island, South China Sea	neuroprotective	cembrane diterpenoid	[24]
19	yalongene B	Hainan Island, South China Sea	neuroprotective	cembrane diterpenoid	[24]
20	sarcophytonolide M	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[4]
21	sarcophytonolide N	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic	cembrane diterpenoid	[25]
22	sarcophytonolide O	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic	cembrane diterpenoid	[25]
23	sarcophytonolide P	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic	cembrane diterpenoid	[25]
24	sarcophytonolide Q	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic	cembrane diterpenoid	[25]
25	sarcophytonolide S	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[26]
26	sarcophytonolide T	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[26]
27	sarcophytonolide U	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[26]
28	(E,E,E)-1-isopropenyl-4,8,12-trimethylcyclotetradeca-3,7,11-triene	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic	cembrane diterpenoid	[25]
29	sarcophytonolide A	Hainan Island, South China Sea	-	cembrane diterpenoid	[26]
30	(E,E,E)-7,8-epoxy-1-isopropyl-4,8,12-trimethylcyclotetradeca-1,3,11-triene	Hainan Island, South China Sea	-	cembrane diterpenoid	[26]
31	sarcophytrol D	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[27]
32	sarcophytrol E	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[27]
33	sarcophytrol F	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[27]
34	sarcophytrol G	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[28]
35	sarcophytrol H	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[28]
36	sarcophytrol I	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[28]
37	sarcophytrol J	Hainan Island, South China Sea Ximao Island, South China Sea	PTP1B inhibitory cytotoxic	cembrane diterpenoid	[28] [31]
38	sarcophytrol K	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[28]
39	sarcophytrol L	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[28]
40	11,12-epoxy-1(E),3(E),7(E)-cembratrien-15-ol	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[27]
41	sinugibberol	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[27]
42	crassumol A	Hainan Island, South China Sea Ximao Island, South China Sea	PTP1B inhibitory cytotoxic	cembrane diterpenoid	[28] [31]
43	sarglaucol	Hainan Island, South China Sea	PTP1B inhibitory	cembrane diterpenoid	[29]

No.	Name	Locality	Bioassay	Class	Ref.
44	7 <i>R</i> *,8 <i>R</i> *-epoxy-isoneocembyance A-16-oic methyl ester	Hainan Island, South China Sea	cytotoxic, acetylcholinesterase inhibitory	cembrane diterpenoid	[30]
45	4- <i>epithunbergol</i>	Hainan Island, South China Sea	cytotoxic, acetylcholinesterase inhibitory	cembrane diterpenoid	[30]
46	<i>cis</i> -cembrene C	Hurgada, Egypt	antifeedant, antibacterial, antifungal	cembrane diterpenoid	[17]
47	<i>cis</i> -cembrenene C	Hurgada, Egypt	antifeedant, antibacterial, antifungal	cembrane diterpenoid	[17]
48	(+)-sarcophytol A	Hurgada, Egypt	antifeedant, antibacterial, antifungal	cembrane diterpenoid	[31]
49	ximaosarcophytol A	Ximao Island, South China Sea	cytotoxic	cembrane diterpenoid	[32]
50	ximaosarcophytol B	Ximao Island, South China Sea	cytotoxic	cembrane diterpenoid	[32]
51	15-hydroxycembra-1,3,7,11-tetraene	Ximao Island, South China Sea	cytotoxic	cembrane diterpenoid	[32]
52	1,13-di- <i>epi</i> -13-acetoxy launine P	Xisha Islands, South China Sea	antibacterial, antiviral	cembrane diterpenoid	[33]
53	13-oxo-thunbergol	Xisha Islands, South China Sea	antibacterial, antiviral	cembrane diterpenoid	[33]
54	launine P	Xisha Islands, South China Sea	antibacterial, antiviral	cembrane diterpenoid	[33]
55	(+)-sarcophytoxide	Leti, Indonesia	-	cembrane diterpenoid	[3]
		Orpheus Island, Australia	-		[23]
56	isosarcophytoxide	Leti, Indonesia	-	cembrane diterpenoid	[3]
		Kenting, Taiwan Island	cytotoxic		[34]
57	16-deoxysarcophine	Kenting, Taiwan Island	cytotoxic	cembrane diterpenoid	[35]
58	(-)-sarcophytoxide	Hainan Island, South China Sea	cytotoxic	cembrane diterpenoid	[30]
59	sarcophytol M	Hainan Island, South China Sea	cytotoxic, PTP1B inhibitory, antibacterial	cembrane diterpenoid	[29]
60	sarcophytol N	Hainan Island, South China Sea	cytotoxic, PTP1B inhibitory, antibacterial	cembrane diterpenoid	[29]
61	sarcophytol O	Hainan Island, South China Sea	cytotoxic, PTP1B inhibitory, antibacterial	cembrane diterpenoid	[29]
62	sarcophytol P	Hainan Island, South China Sea	cytotoxic, PTP1B inhibitory, antibacterial	cembrane diterpenoid	[29]

No.	Name	Locality	Bioassay	Class	Ref.
63	isocrassumol B	Xisha Islands, South China Sea	antibacterial, antiviral	cembrane diterpenoid	[33]
64	sarcotrocheliol acetate	Jeddah, Saudi Arabia	antibacterial, antifeedant, cytotoxic	cembrane diterpenoid	[16]
		Hurghada, Egypt	antibacterial		[31] [38]
65	sarcotrocheliol	Jeddah, Saudi Arabia	antibacterial, antifeedant, cytotoxic	cembrane diterpenoid	[16]
		Hurghada, Egypt	cytotoxic, anti-leishmanial		[36] [39]
66	sarcotrocheldiol A	Jeddah, Saudi Arabia	antibacterial	cembrane diterpenoid	[37]
67	sarcotrocheldiol B	Jeddah, Saudi Arabia	antibacterial	cembrane diterpenoid	[37]
68	9-hydroxy-10,11-dehydro-sarcotrocheliol	Hurghada, Egypt	antibacterial	cembrane diterpenoid	[31]
69	9-hydroxy-7,8-dehydro-sarcotrocheliol	Hurghada, Egypt	antibacterial	cembrane diterpenoid	[36] [38]
70	8,9-expoy-sarcotrocheliol acetate	Hurghada, Egypt	antibacterial	cembrane diterpenoid	[38]
71	sarcopyranoid A	Hurghada, Egypt	cytotoxic, antiviral	cembrane diterpenoid	[39]
72	sarcophytrol Q	Hainan Island, South China Sea	cytotoxic, PTP1B inhibitory, antiviral	cembrane diterpenoid	[29]
73	sarcophytrol R	Hainan Island, South China Sea	cytotoxic, PTP1B inhibitory, antiviral	cembrane diterpenoid	[29]
74	sarcophytrol S	Hainan Island, South China Sea	cytotoxic, PTP1B inhibitory, antiviral	cembrane diterpenoid	[29]
75	(+)-isosarcophine	Kenting, Taiwan Island	cytotoxic	cembrane diterpenoid	[34]
76	7 β ,8 α -dihydroxydeepoxysarcophine	Kenting, Taiwan Island	cytotoxic	cembrane diterpenoid	[35]
		Kenting, Taiwan Island	cytotoxic		[35]
77	sarcophine	Pulau Hantu, Singapore	cytotoxic	cembrane diterpenoid	[8]
		Jeddah, Saudi Arabia	antibacterial, antifungal, cytotoxic, antifeedant		[16]
78	(-)-sartrochine	South China Sea	cytotoxic, antibacterial	cembrane diterpenoid	[40]
79	sarcophytonolide J	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic	cembrane diterpenoid	[25]
80	sarcophytonolide R	Hainan Island, South China Sea	cytotoxic, PTP1B inhibitory	cembrane diterpenoid	[25]
81	ent-sarcophine	Hainan Island, South China Sea	acetylcholinesterase inhibitory, cytotoxic	cembrane diterpenoid	[30]

No.	Name	Locality	Bioassay	Class	Ref.
82	2-hydroperoxysarcophine	Hainan Island, South China Sea	acetylcholinesterase inhibitory, cytotoxic	cembrane diterpenoid	[30]
83	trocheliol	Pingtung, Taiwan Island	-	cembrane diterpenoid	[41]
84	trocheliolide A	Lanyu Island, Taiwan	cytotoxic	cembrane diterpenoid	[43]
85	trocheliolide B	Lanyu Island, Taiwan	-	cembrane diterpenoid	[44]
86	7 β -hydroxy-8 α -methoxydeepoxysarcophine	Gulf of Suez, Egypt	-	cembrane diterpenoid	[45]
87	trochelioid A	Hurghada, Egypt	-	cembrane diterpenoid	[46]
88	trochelioid B	Hurghada, Egypt	-	cembrane diterpenoid	[46]
89	16-oxosarcophytonin E	Hurghada, Egypt	-	cembrane diterpenoid	[46]
90	8- <i>epi</i> -sarcophinone	Hurghada, Egypt	-	cembrane diterpenoid	[46]
91	7 α ,8 α -sarcophine	Xisha Islands, South China Sea	antibacterial, antiviral	cembrane diterpenoid	[33]
92	sarcophytonin B	Xisha Islands, South China Sea	antibacterial, antiviral	cembrane diterpenoid	[33]
93	sartrolide A	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[26]
94	sartrolide B	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[26]
95	sartrolide C	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[26]
96	sartrolide D	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[26]
97	sartrolide E	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[26]
98	sartrolide F	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[26]
99	sartrolide G	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[26]
100	sartrolide H	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[47]
101	sartrolide I	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[47]

No.	Name	Locality	Bioassay	Class	Ref.
102	sartrolide J	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[47]
103	ketoemblide	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[25]
104	4Z,12Z,14E-sarcophytolide	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[25] [47]
105	sarcassin D	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[26] [47]
106	sarcassin E	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[25]
107	emblide	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[26] [47]
108	sarcophytolide	Hainan Island, South China Sea	antibacterial	cembrane diterpenoid	[26]
109	deacetylemblide	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[47]
110	sarcophytrol T	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[29]
111	sarcophytrol U	Hainan Island, South China Sea	PTP1B inhibitory, cytotoxic, antibacterial	cembrane diterpenoid	[29]
112	sarcophytin	Kurside Island, India	-	perhydrophenanthrane diterpenoids	[15]
113	unnamed	Andaman and Nicobar Islands, Indian Ocean	-	capnosane diterpenoids	[48]
114	sarsolilide B	Hainan Island, South China Sea	PTP1B inhibitory	capnosane diterpenoids	[5]
115	sarsolilide C	Hainan Island, South China Sea	PTP1B inhibitory	capnosane diterpenoids	[5]
116	sarsolilide A	Hainan Island, South China Sea	PTP1B inhibitory	capnosane diterpenoids	[5]
117	sarcophytrol A	Hainan Island, South China Sea	PTP1B inhibitory	capnosane diterpenoids	[50]
118	sarcophytrol B	Hainan Island, South China Sea	PTP1B inhibitory	capnosane diterpenoids	[50]
119	sarcophytrol C	Hainan Island, South China Sea	PTP1B inhibitory	capnosane diterpenoids	[50]
120	trocheliophol A	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
121	trocheliophol B	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]

No.	Name	Locality	Bioassay	Class	Ref.
122	trocheliophol C	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
123	trocheliophol D	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
124	trocheliophol E	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
125	trocheliophol F	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
126	trocheliophol G	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
127	trocheliophol H	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
128	trocheliophol I	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
129	trocheliophol J	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
130	trocheliophol K	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
131	trocheliophol L	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
132	trocheliophol M	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
133	trocheliophol N	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
134	trocheliophol O	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
135	trocheliophol P	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
136	trocheliophol Q	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
137	trocheliophol R	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
138	trocheliophol S	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
139	sarcophytol L	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
140	4- <i>epi</i> -sarcophytol L	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
141	sarcophylide B	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
142	sarcophylide C	Weizhou Island, South China Sea	anti-inflammatory, antibacterial	capnosane diterpenoids	[6]
143	dihydrosarsolenone	Hainan Island, South China Sea	PTP1B inhibitory	sarsolenane diterpenoids	[5]
144	methyl dihydrosarsolenoneate	Hainan Island, South China Sea	PTP1B inhibitory	sarsolenane diterpenoids	[5]
145	secodihydrosarsolenone	Hainan Island, South China Sea	PTP1B inhibitory	sarsolenane diterpenoids	[51]
146	methyl sarcotroate A	Hainan Island, South China Sea	PTP1B inhibitory	sarcotroane diterpenoids	[4]
147	methyl sarcotroate B	Hainan Island, South China Sea	PTP1B inhibitory	sarcotroane diterpenoids	[4]
148	bissartrolide	Hainan Island, South China Sea	antibacterial	bissartrane biscebranoids	[47]
149	trocheliane	Jeddah, Saudi Arabia	antibacterial	trocheliane biscebranoids	[37]
150	glaucumolide A	Xisha Islands, South China Sea	immunomodulatory	glaucumane biscebranoids	[7]
151	glaucumolide B	Xisha Islands, South China Sea	immunomodulatory	glaucumane biscebranoids	[7]

No.	Name	Locality	Bioassay	Class	Ref.
152	bistrochelide A	Xisha Islands, South China Sea	immunomodulatory	glaucumane biscalanones	[7]
153	bistrochelide B	Xisha Islands, South China Sea	immunomodulatory	glaucumane biscalanones	[7]
154	bistrochelide C	Xisha Islands, South China Sea	immunomodulatory	glaucumane biscalanones	[7]
155	bistrochelide D	Xisha Islands, South China Sea	immunomodulatory	glaucumane biscalanones	[7]
156	bistrochelide E	Xisha Islands, South China Sea	immunomodulatory	glaucumane biscalanones	[7]

* Note: In the table, '-' indicates no bioassay was performed.