Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary material

Marine natural products from sponges (Porifera) of the order Dictyoceratida (2013 to 2019); a promising source for drug discovery

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Table (S1): Secondary metabolites isolated from dictyoceratida sponges and their biological tested activities (2013 to December 2019):

Compound	Class	Bioactivity	*Source*	Collection site	Ref	State
A- Family: Thorectidae						
Hyrtioerectine D	Nitrogenous compound	Antimicrobial, Antioxidant and cytotoxic	*Hyrtios sp.*	The Red Sea	[1]	New
Hyrtioerectine E	Nitrogenous compound	Antimicrobial, Antioxidant and cytotoxic	*Hyrtios sp.*	The Red Sea	[1]	New
Hyrtioerectine F	Nitrogenous compound	Antimicrobial, Antioxidant and cytotoxic	*Hyrtios sp.*	The Red Sea	[1]	New
Hyrtimomine A	Nitrogenous compound	Cytotoxic activity	*Hyrtios sp.*	Kerama Islands, Okinawa	[2]	New
Hyrtimomine B	Nitrogenous compound	NA	*Hyrtios sp.*	Kerama Islands, Okinawa	[2]	New
Hyrtimomine C	Nitrogenous compound	NA	*Hyrtios sp.*	Kerama Islands, Okinawa	[2]	New
Hyrtimomine D	Nitrogenous compound	Antimicrobial activity	*Hyrtios sp.*	Kerama Islands, Okinawa	[3]	New
Hyrtimomine E	Nitrogenous compound	Antimicrobial activity	*Hyrtios sp.*	Kerama Islands, Okinawa	[3]	New
Hyrtimomine F	Nitrogenous compound	Antimicrobial activity	*Hyrtios sp.*	Kerama Islands, Okinawa	[4]	New
Hyrtimomine G	Nitrogenous compound	Antimicrobial activity	*Hyrtios sp.*	Kerama Islands, Okinawa	[4]	New
Hyrtimomine H	Nitrogenous compound	Antimicrobial activity	*Hyrtios sp.*	Kerama Islands, Okinawa	[4]	New

Hyrtimomine I	Nitrogenous compound	Antimicrobial activity	*Hyrtios sp.*	Kerama Islands, Okinawa	[4]	New
Hyrtimomine J	Nitrogenous compound	Antimicrobial activity	*Hyrtios sp.*	Kerama Islands, Okinawa	[4]	New
Hyrtimomine K	Nitrogenous compound	Antimicrobial activity	*Hyrtios sp.*	Kerama Islands, Okinawa	[4]	New
Sesterstamide	Sesterterpene	Antileishmanial activity	*Hyrtios sp.*	Paracel Islands, China	[5]	New
(5bR,11aS,13R,13aS,13bR)-13-hydroxy-5b,8,8,11a,13a-pentamethyl-1,5,5a,6,7,7a,8,9,10,11,11a,11b,12,13,13a,13b-hexadecahydrochryseno[1,2-c]furan-3(5bH)-one	Sesterterpene	Cytotoxic activity	*Hyrtios sp.*	Paracel Islands, China	[5]	known
(4S,5bR,11aS,13R,13aS,13bR)-4,13-dihydroxy-5b,8,8,11a,13a-pentamethyl-5,5a,5b,6,7,7a,8,9,10,11,11a,11b,12,13,13a,13b-hexadecahydrochryseno[1,2-c]furan-1(4H)-one	Sesterterpene	Cytotoxic activity	*Hyrtios sp.*	Paracel Islands, China	[5]	known
16-epi-scalarafuran	Sesterterpene	Potent inhibitors of TDP-43 protein	*Hyrtios sp.*	Fiji Islands	[6]	New

Hemiacetal of 12-deacetyl-cis-24α,25α-dimethoxyscalarin	Sesterterpene	Potent inhibitors of TDP-43 protein	*Hyrtios sp.*	Fiji Islands	[6]	New
Scalarafuran	Sesterterpene	Potent inhibitors of TDP-43 protein	*Hyrtios sp.*	Fiji Islands	[6]	Known
			Petrosaspongia sp.	Fiji Islands	[6]	
			Hyrtios erectus	Similan Island, Thailand	[7]	
12-deacetyl-cis-24α,25α-dimethoxyscalarin	Sesterterpene	Potent inhibitors of TDP-43 protein	*Hyrtios sp.*	Fiji Islands	[6]	Known
12-deacetyl-trans-24α,25β-dimethoxyscalarin	Sesterterpene	Potent inhibitors of TDP-43 protein	*Hyrtios sp.*	Fiji Islands	[6]	Known
Heteronemin	Sesterterpene	Potent inhibitors of TDP-43 protein	*Hyrtios sp.*	Fiji Islands	[6]	Known
			Petrosaspongia sp.	Fiji Islands	[6]	
		Cytotoxic activity	*Hyrtios erectus*	The Red Sea Coast, Jeddah	[8]	
		Antitubercular & cytotoxic activities	*Hyrtios erectus*	The Red Sea, Egypt	[9]	
		Cytotoxic activity	*Hyrtios sp.*	Grand Island	[10]	
		Cytotoxic activity	*Hyrtios sp.*	Paracel Islands, China	[5]	
		Cytotoxic activity	*Hyrtios erectus*	The Red Sea, Egypt	[11]	

Heteronemin acetate	Sesterterpene	Potent inhibitors of TDP-43 protein	*Hyrtios sp.*	Fiji Islands	[6]	Known
12-Deacetyl-12-epi-deoxoscalarin	Sesterterpene	Potent inhibitors of TDP-43 protein	*Hyrtios sp.*	Fiji Islands	[6]	Known
12-epi-deoxoscalarin	Sesterterpene	Potent inhibitors of TDP-43 protein	*Hyrtios sp.*	Fiji Islands	[6]	Known
Scalarolide	Sesterterpene	Potent inhibitors of TDP-43 protein - cytotoxic activit	*Hyrtios sp.*	Fiji Islands	[6]	Known
		Anti-H. pylori& antitubercular activities	*Hyrtios erectus*	The Red Sea, Egypt	[9]	
			Hyrtios sp.	Paracel Islands, China	[5]	
		NA	*Hyrtios erectus*	The Red Sea, Egypt	[11]	
12-episcalaradial	Sesterterpene	Potent inhibitors of TDP-43 protein	*Hyrtios sp.*	Fiji Islands	[6]	Known

12-Deacetyl-12-*epi*-scalaradial	Sesterterpene	Potent inhibitors of TDP-43 protein - Anti-H. pylori-antitubercular-cytotoxic activities - Cytotoxic against hepatocellular carcinoma (HepG2), colorectal carcinoma (HCT-116) and breast adenocarcinoma cells (MCF-7).	*Hyrtios sp.*	Fiji Islands Red Sea	[6]	Known
			Hyrtios erectus	The Red Sea, Egypt	[9]	
			Hyrtios erectus	The Red Sea, Egypt	[12]	
12-Deacetyl-12,18-diepi-scalaradial	Sesterterpene	Potent inhibitors of TDP-43 protein	*Hyrtios sp.*	Fiji Islands	[6]	Known
Hyrtiosal	Sesterterpene	Potent inhibitors of TDP-43 protein	*Hyrtios sp.*	Fiji Islands	[6]	Known
			Petrosaspongia sp.	Fiji Islands	[6]	
Methyl diacarnoate A	Terpene	Potent inhibitors of TDP-43 protein	*Hyrtios sp.*	Fiji Islands	[6]	Known
Hyrtinadines C	Nitrogenous compound	Antimicrobial activity	*Hyrtios sp.*	Okinawa	[13]	New
Hyrtinadines D	Nitrogenous compound	Antimicrobial activity	*Hyrtios sp.*	Okinawa	[13]	New
Hyrtiolacton A	Meroterpene	NA	*Hyrtios sp.*	Yongxing island, South China Sea	[14]	New
Nakijinol F	Meroterpene	NA	*Hyrtios sp.*	Yongxing island, South China Sea	[14]	New

Nakijinol G	Meroterpene	Protein tyrosine phosphatase (PTP1B) inhibitory activity	*Hyrtios sp.*	Yongxing island, South China Sea	[14]	New
Nakijinol B	Meroterpene	NA	*Hyrtios sp.*	Yongxing island, South China Sea	[14]	Known
Dactyloquinone A	Meroterpene	NA	*Hyrtios sp.*	Yongxing island, South China Sea	[14]	Known
15α-Methoxypuupehenol	Merosesquiterpene	Cytotoxic due to antitumor effects against human glioblastoma (GBM) and breast cancer.	*Hyrtios sp.*	Haleiwa Trench, the North Shore of Oahu	[15]	Known
Hyrtiodoline A	Nitrogenous compound	Antitrypanosomal activity	*Hyrtios sp.*	Sharm el-Sheikh, Egypt.	[16]	New
4-Hydroxy-1H-indole-6-carboxylic acid methyl ester	Nitrogenous compound	NA	*Hyrtios sp.*	Sharm el-Sheikh, Egypt.	[16]	known
Dimer of indole-3-carbaldehyde	Nitrogenous compound	NA	*Hyrtios sp.*	Sharm el-Sheikh, Egypt.	[16]	known
3-Methylene hydroxy β-carboline	Nitrogenous compound	NA	*Hyrtios sp.*	Sharm el-Sheikh, Egypt.	[16]	known
2,3-Dibromo-4-hydroxybenzaldehyde	Halogenated compound	NA	*Hyrtios sp.*	Sharm el-Sheikh, Egypt.	[16]	known
Thorectidaeolide A	Sesterterpene	HIF-1 inhibitory activity	*Hyrtios communis*	The coast of Palau	[17]	New
4-Acetoxythorectidaeolide A	Sesterterpene	HIF-1 inhibitory activity	*Hyrtios communis*	The coast of Palau	[17]	New
Thorectidaeolide B	Sesterterpene	HIF-1 inhibitory activity	*Hyrtios communis*	The coast of Palau	[17]	New
Thorectidaeolide C	Sesterterpene	HIF-1 inhibitory activity	*Hyrtios communis*	The coast of Palau	[17]	New
Thorectidaeolide D	Sesterterpene	HIF-1 inhibitory activity	*Hyrtios communis*	The coast of Palau	[17]	New

Thorectidaeolide E	Sesterterpene	HIF-1 inhibitory activity	*Hyrtios communis*	The coast of Palau	[17]	New
Acantholide C	Sesterterpene	HIF-1 inhibitory activity	*Hyrtios communis*	The coast of Palau	[17]	Known
Acantholide B	Sesterterpene	HIF-1 inhibitory activity	*Hyrtios communis*	The coast of Palau	[17]	Known
16-Hydroxyluffariellolide	Sesterterpene	HIF-1 inhibitory activity	*Hyrtios communis*	The coast of Palau	[17]	Known
Acantholide A	Sesterterpene	HIF-1 inhibitory activity	*Hyrtios communis*	The coast of Palau	[17]	Known
Luffariellolide	Sesterterpene	HIF-1 inhibitory activity and antiproliferative activity	*Hyrtios communis*	The coast of Palau	[17]	Known
Hainanerectamine A	Nitrogenous compound	NA	*Hyrtios erecta.*	Hainan Province, China	[18]	New
Hainanerectamine B	Nitrogenous compound	Inhibitory activity against Aurora A	*Hyrtios erecta.*	Hainan Province, China	[18]	New
(−)-(1R*, 3R*)-6-hydroxy-1-(4-methylene-1H-imidazole)-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid.	Nitrogenous compound	Inhibitory activity against Aurora A	*Hyrtios erecta.*	Hainan Province, China	[18]	Known
Hainanerectamine C	Nitrogenous compound	Inhibitory activity against Aurora A	*Hyrtios erecta.*	Hainan Province, China	[18]	New
5-Hydroxyindole-3-carbaldehyde	Nitrogenous compound	NA	*Hyrtios erecta.*	Hainan Province, China	[18]	Known
5-Hydroxyindole-3-carboxylic acid	Nitrogenous compound	NA	*Hyrtios erecta.*	Hainan Province, China	[18]	Known
5-Hydroxy-3-(2-hydroxyethyl)-indole	Nitrogenous compound	NA	*Hyrtios erecta.*	Hainan Province, China	[18]	Known
5-Hydroxytryptophan	Nitrogenous compound	NA	*Hyrtios erecta.*	Hainan Province, China	[18]	Known
Scalarinol	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	The Red Sea Coast, Jeddah	[8]	New
12-O-deacetyl-19-deoxyscalarin	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	The Red Sea Coast, Jeddah	[8]	known
5α, 8α-epidioxy-24-methylcholesta-6-en-3β-ol	Sterol	NA	*Hyrtios erectus*	The Red Sea Coast, Jeddah	[8]	known

12-Acetoxy,16-epi-hyrtiolide	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	The Red Sea, Egypt	11	New
		Anti-H. pylori-antitubercular-cytotoxic activities	*Hyrtios erectus*	The Red Sea, Egypt	9	
12 -Acetoxy,16 -methoxy,20 -hydroxy-17-scalaren-19,20-olide	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	The Red Sea, Egypt	11	New
12β,20-Dihydroxy-16β-acetoxy-17-scalaren-19,20-olide	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	The Red Sea, Egypt	11	known
Sesterstatin 7	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	The Red Sea, Egypt	11	known
		Anti-H. pylori-antitubercular-cytotoxic activities	*Hyrtios erectus*	The Red Sea, Egypt	9	
12-*epi*-24-deoxyscalarin	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	The Red Sea, Egypt	11	known
		Anti-H. pylori-antitubercular-cytotoxic activities	*Hyrtios erectus*	The Red Sea, Egypt	9	
Scalarolide acetate	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	The Red Sea, Egypt	11	known
		Anti-H. pylori-antitubercular-cytotoxic activities	*Hyrtios erectus*	The Red Sea, Egypt	9	
12-deacetyl-12,18-di-epi-scalaradial	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	The Red Sea, Egypt	11	known

24-Methoxypetrosaspongia C	Sesterterpene	Cytotoxic against hepatocellular carcinoma (HepG2), colorectal carcinoma (HCT-116) and breast adenocarcinoma cells (MCF-7).activity	*Hyrtios erectus*	The Red Sea, Egypt	12	New
		Anti-H. pylori-antitubercular-cytotoxic activity	*Hyrtios erectus*	The Red Sea, Egypt	9	
Sesterstatin 3	Sesterterpene	Cytotoxic against hepatocellular carcinoma (HepG2), colorectal carcinoma (HCT-116) and breast adenocarcinoma cells (MCF-7) activity.	*Hyrtios erectus*	The Red Sea, Egypt	12	Known
		Anti-H. pylori-antitubercular-cytotoxic activity			9	
12-Deacetyl-12,18-di-*epi*-scalaradial	Sesterterpene	Cytotoxic against hepatocellular carcinoma (HepG2), colorectal carcinoma (HCT-116) and breast adenocarcinoma cells (MCF-7) activity	*Hyrtios erectus*	The Red Sea, Egypt	12	Known
		Anti-H. pylori-antitubercular-cytotoxic activity	*Hyrtios erectus*	The Red Sea, Egypt	9	
19 Acetylsesterstatin 3	Sesterterpene	Anti-H. pylori-antitubercular	*Hyrtios erectus*	The Red Sea, Egypt	9	Known
12*β*,20*α*-Dihydroxy-16*β*-acetoxy-17-scalaren-19,20-olide	Sesterterpene	Anti-H. pylori-antitubercular-cytotoxic activities	*Hyrtios erectus*	The Red Sea, Egypt	9	Known
12-*O*-Acetyl-16-*O*-methylhyrtiolide	Sesterterpene	Anti-H. pylori-antitubercular-cytotoxic activities	*Hyrtios erectus*	The Red Sea, Egypt	9	Known

12*β*-Acetoxy,16*β*-methoxy,20*α*-hydroxy-17-scalaren-19,20-olide	Sesterterpene	Anti-H. pylori-antitubercular-cytotoxic activities	*Hyrtios erectus*	The Red Sea, Egypt	[9]	Known
12-*O*-Deacetyl-12,19-di-*epi*-scalarin	Sesterterpene	Anti-H. pylori & antitubercular activities	*Hyrtios erectus*	The Red Sea, Egypt	[9]	New
Smenotronic acid	Sesquiterpene	Antimalarial activity	*Hyrtios erectus*	Chuuk Island, Federated States of Micronesia	[19]	Known
Erectusolide B	Sesterterpene	NA	*Hyrtios erectus*	Similan Island, Thailand	[7]	New
Erectusolide C	Sesterterpene	NA	*Hyrtios erectus*	Similan Island, Thailand	[7]	New
Erectusolide D	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	New
Seco-manoalide-25-methyl ether	Sesterterpene	NA	*Hyrtios erectus*	Similan Island, Thailand	[7]	New
Erectusfuranone A	Miscellaneous compound	Cytotoxic activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	New
Erectusfuranone B	Miscellaneous compound	NA	*Hyrtios erectus*	Similan Island, Thailand	[7]	New
(6Z)-neomanoalide-24-acetate	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known
24-O-Methylmanoalide	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known
Luffariolide B	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known
Manoalide	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known
(6E)- and (6Z)-neomanoalide	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known

Seco-manoalide	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known
Cavernosine	Sesterterpene	Cytotoxic activity - Antimicrobial activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known
			Fasciospongia cavernosa		[20]	
12-Acetylscalarolide	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known
12-epi-O-deacetyl-19- deoxyscalarin	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known
12-epi-scalarin	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known
12-O-deacetyl-12-epi-scalarin	Sesterterpene	Cytotoxic activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known
5-hydroxy-1H-indole-3-carbaldehyde	Nitrogenous compound	NA	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known
Hyrtiosine A	Nitrogenous compound	NA	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known
Variabine B	Nitrogenous compound	Cytotoxic activity	*Hyrtios erectus*	Similan Island, Thailand	[7]	Known
		Inhibition of chymotrypsin-like activity of the proteasome and Ubc13 (E2)–Uev1A interaction	*Luffariella variabilis*	North Sulawesi, Indonesia	[21]	
4’-Methylheptyl benzoate	Miscellaneous compound	Cytotoxic activity	*Hyrtios erectus*	Red Sea coast, Jeddah, Saudi Arabia	[22]	New

3-β-Hydroxycholest-5-en-7-one	Oxysterol	Cytotoxic activity	*Hyrtios erectus*	Red Sea coast, Jeddah, Saudi Arabia	[22]	Known
1H-indole-3-carbaldehyde	Nitrogenous compound	NA	*Hyrtios erectus*	Red Sea coast, Jeddah, Saudi Arabia	[22]	Known
Tryptoline	Nitrogenous compound	NA	*Hyrtios erectus*	Red Sea coast, Jeddah, Saudi Arabia	[22]	Known
6-Hydroxy-1,2,3,4-tetrahydro-9H-β-carboline-3-carboxylic acid	Nitrogenous compound	NA	*Hyrtios erectus*	Red Sea coast, Jeddah, Saudi Arabia	[22]	Known
Hyrtioreticulin B	Nitrogenous compound	NA	*Hyrtios erectus*	Red Sea coast, Jeddah, Saudi Arabia	[22]	Known
19-Methoxy-9,15-ene-puupehenol	Merosesquiterpene	Atherosclerosis inhibitor	*Hyrtios digitatus*	Australia	[23]	New
20-Methoxy-9,15-ene-puupehenol	Merosesquiterpene	Atherosclerosis inhibitor	*Hyrtios digitatus*	Australia	[23]	Known
Petrosaspongiolactam A	Sesterterpene	Potent inhibitors of TDP-43 protein	*Petrosaspongia species*	Fiji Islands	[6]	New
Petrosaspongiolactam B	Sesterterpene	Potent inhibitors of TDP-43 protein	*Petrosaspongia species*	Fiji Islands	[6]	New
Petrosaspongiolactam C	Sesterterpene	NA	*Petrosaspongia species*	Fiji Islands	[6]	New
Scalarolbutenolide	Sesterterpene	Potent inhibitors of TDP-43 protein	*Petrosaspongia species*	Fiji Islands	[6]	Known
Episcalarolbutenolide	Sesterterpene	Potent inhibitors of TDP-43 protein	*Petrosaspongia species*	Fiji Islands	[6]	Known
Smenamide A	Hybrid peptide/polyketide	Cytotoxic activity	*Smenospongia aurea*	Bahamas Islands	[24]	New
		NA	*Smenospongia conulosa*		[25]	
Smenamide B	Hybrid peptide/polyketide	Cytotoxic activity	*Smenospongia aurea*	Bahamas Islands	[24]	New
		NA	*Smenospongia conulosa*		[25]	

(E)-10-Benzyl-5,7-dimethylundeca-1,5,10-trien-4-ol	Miscellaneous compound	Cytotoxic activity	*Mixture of three sponges, Smenospongia aurea, S. cerebriformis, and Verongula rigida*	Florida	[26]	New
Smenothiazole A	Hybrid peptide/polyketide	Cytotoxic activity	*Smenospongia aurea*	Bahamas Islands	[27]	New
		NA	*Smenospongia conulosa*		[25]	
Smenothiazole B	Hybrid peptide/polyketide	Cytotoxic activity	*Smenospongia aurea*	Bahamas Islands	[27]	New
		NA	*Smenospongia conulosa*		[25]	
(−)-Nakijinol E	Sesquiterpene	NA	*Smenospongia aurea and S.cerebriformis*	Key Largo, Florida	[28]	New
(+)-5-epi-Nakijinol E	Sesquiterpene	Cytotoxic activity	*Smenospongia aurea and S.cerebriformis*	Key Largo, Florida	[28]	New
Mixture of nakijinone A and 5-epi-nakijinone A	Sesquiterpene	Cytotoxic activity	*Smenospongia aurea and S.cerebriformis*	Key Largo, Florida	[28]	New
(−)-Dactylospongenone E	Sesquiterpene	NA	*Smenospongia aurea and S.cerebriformis*	Key Largo, Florida	[28]	New
Mixture of 5-epi-dactylospongenones E and F	Sesquiterpene	NA	*Smenospongia aurea and S.cerebriformis*	Key Largo, Florida	[28]	New
(+)-5-epi-20-O-Ethylsmenoquinone	Sesquiterpene	Cytotoxic activity	*Smenospongia aurea and S.cerebriformis*	Key Largo, Florida	[28]	New
Smenopyrone	Miscellaneous compound	NA	*Smenospongia aurea*	The coast of Great Inagua (Bahamas Islands)	[29]	New
Smenolactone A	Polyketide	Antiproliferative activity	*Smenospongia aurea.*	Mayaguana Island, Bahamas	[30]	New
Smenolactone B	Polyketide	Antiproliferative activity	*Smenospongia aurea.*	Mayaguana Island, Bahamas	[30]	New
Smenolactone C	Polyketide	Antiproliferative activity	*Smenospongia aurea.*	Mayaguana Island, Bahamas	[30]	New
Smenolactone D	Polyketide	Antiproliferative activity	*Smenospongia aurea.*	Mayaguana Island, Bahamas	[30]	New

Conulothiazoles A	Hybrid peptide/polyketide	NA	*Smenospongia conulosa*	Bahamas Islands	[25]	New
Conulothiazoles B	Hybrid peptide/polyketide	NA	*Smenospongia conulosa*	Bahamas Islands	[25]	New
Smenocerone A	Miscellaneous compound	NA	*Smenospongia cerebriformis*	Eastern Sea of Quangtri, Vietnam	[31]	New
Smenocerone B	Miscellaneous compound	Cytotoxic activity towards lung carcinoma (LU-1), hepatocellular carcinoma (HepG-2), promyelocytic leukemia (HL-60), breast carcinoma (MCF-7), and melanoma (SK-Mel-2) human cancer cells	*Smenospongia cerebriformis*	Eastern Sea of Quangtri, Vietnam	[31]	New
Dactylospongenone A	Sesquiterpene	NA	*Smenospongia cerebriformis*	Eastern Sea of Quangtri, Vietnam	[31]	Known
Dactylospongenone B	Sesquiterpene	NA	*Smenospongia cerebriformis*	Eastern Sea of Quangtri, Vietnam	[31]	Known
Dactylospongenone C	Sesquiterpene	NA	*Smenospongia cerebriformis*	Eastern Sea of Quangtri, Vietnam	[31]	Known
Dactylospongenone D	Sesquiterpene	NA	*Smenospongia cerebriformis*	Eastern Sea of Quangtri, Vietnam	[31]	Known
Smenohaimien A	Sesquiterpene	Anti-inflammatory activity	*Smenospongia cerebriformis*	Vinhmoc, Quangtri	[32]	New
Smenohaimien B	Sesquiterpene	Anti-inflammatory activity	*Smenospongia cerebriformis*	Vinhmoc, Quangtri	[32]	New

Smenohaimien C	Sesquiterpene	Anti-inflammatory activity	*Smenospongia cerebriformis*	Vinhmoc, Quangtri	[32]	New
Smenohaimien D	Sesquiterpene	Anti-inflammatory activity	*Smenospongia cerebriformis*	Vinhmoc, Quangtri	[32]	New
Smenohaimien E	Sesquiterpene	Anti-inflammatory activity	*Smenospongia cerebriformis*	Vinhmoc, Quangtri	[32]	New
19-Hydroxy-polyfibrospongol B	Sesquiterpene	Anti-inflammatory activity	*Smenospongia cerebriformis*	Vinhmoc, Quangtri	[32]	Known
Polyfibrospongol B	Sesquiterpene	Anti-inflammatory activity	*Smenospongia cerebriformis*	Vinhmoc, Quangtri	[32]	Known
Smenohaimien F	Sesquiterpene	Cytotoxic activity	*Smenospongia cerebriformis*	Quang Tri, Vietnam	[33]	New
Neodactyloquinone	Sesquiterpene	NA	*Smenospongia cerebriformis*	Quang Tri, Vietnam	[33]	Known
Dactyloquinone C	Sesquiterpene	Cytotoxic activity (moderate)	*Smenospongia cerebriformis*	Quang Tri, Vietnam	[33]	Known
Dactyloquinone D	Sesquiterpene	Cytotoxic activity (moderate)	*Smenospongia cerebriformis*	Quang Tri, Vietnam	[33]	Known
Isoamijiol	Sesquiterpene	NA	*Smenospongia cerebriformis*	Quang Tri, Vietnam	[33]	Known
Amijiol	Sesquiterpene	NA	*Smenospongia cerebriformis*	Quang Tri, Vietnam	[33]	Known
Fasciospyrinadine	Sesquiterpene	NA	*Fasciospongia sp.*	Weizhou Island, Guangxi Autonomous Region, China.	[34]	New
Secomanoalide	Sesterterpene	Antimicrobial activity	*Fasciospongia cavernosa*	Not detected	[20]	known
4E,6E-dehydromanoalide	Sesterterpene	Antimicrobial activity	*Fasciospongia cavernosa*	Not detected	[20]	known
5-Hydroxyindole-3-glyoxylate methyl ester	Nitrogenous compound	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[35]	New
Hyrtinadine B	Nitrogenous compound	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[35]	New
Scalaridine A	Nitrogenous compound	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[35]	New

Hyrtiosin A	Nitrogenous compound	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[35]	Known
5-Hydroxytryprophol	Nitrogenous compound	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[35]	Known
5-Hydroxy-1H-indole-3-carboxylic acid methyl ester	Nitrogenous compound	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[35]	Known
5-Hydroxyindole-3- carbaldehyde	Nitrogenous compound	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[35]	Known
Hyrtiosin B	Nitrogenous compound	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[35]	Known
Hyrtinadine A	Nitrogenous compound	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[35]	Known
Begonanline	Nitrogenous compound	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[35]	Known
Scalarin	Sesterterpene	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[36]	Known
12-*epi*-12-O-acetylscalarolide	Sesterterpene	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[36]	Known
12-*O*-Acetyl-12,16-epi-scalarolbutenolide	Sesterterpene	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[36]	Known
12α- Acetoxy-16β-hydroxyscalarolbutenolide	Sesterterpene	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[36]	Known

16-*O*-Deacetyl-12,16-epi-scalarolbutanolide	Sesterterpene	NA	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[36]	New
(4*S*,5b*R*,11a*S*,13a*S*,13b*R*)-5b,8,8,11a,13a-pentamethyl-2-oxo-2,4,5,5a,5b,6,7,7a,8,9,10,11,11a,11b,12,13,13a,13b-octadecahydrochryseno[1,2-b]furan-4-yl acetate	Sesterterpene	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[36]	New
(4S,5b*R*,11a*S*,13a*S*,13b*R*)-4-hydroxy-5b,8,8,11a,13a-pentamethyl-5,5a,5b,6,7,7a,8,9,10,11,11a,11b,12,13,13a,13b-hexadecahydrochryseno[1,2-b]furan-2(*4H*)-one	Sesterterpene	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[36]	New
(4a*S*,6*S*,6a*R*,10b*R*)-8-(hydroxymethyl)-1,1,4a,6a,10b-pentamethyl-9-oxo-1,2,3,4,4a,4b,5,6,6a,9,10,10a,10b,11,12,12a-hexadecahydrochrysen-6-yl acetate	Sesterterpene	Cytotoxic activity	*Scalarispongia sp.*	Dokdo island, Republic of Korea	[36]	New
Isoscalarafuran A	Sesterterpene	NA	*Scalarispongia sp.*	Dokdo (island), Republic of Korea	[37]	Known
Furoscalarol	Sesterterpene	NA	*Scalarispongia sp.*	Dokdo (island), Republic of Korea	[37]	Known
(5b*R*,11a*S*,13*S*,13a*R*)-5b,8,8,11a,13a-pentamethyl-4-oxo-4,5,5a,5b,6,7,7a,8,9,10,11,11a,11b,12,13,13a-hexadecahydrochryseno[1,2-b]furan-13-yl acetate	Sesterterpene	Cytotoxic activity	*Scalarispongia sp.*	Dokdo (island), Republic of Korea	[37]	Known
(5b*R*,11a*S*,13*S*,13a*S*)-5b,8,8,11a,13a-pentamethyl-4-oxo-4,5,5a,5b,6,7,7a,8,9,10,11,11a,11b,12,13,13a-hexadecahydro-1H-phenanthro[1,2-g]indol-13-yl acetate	Sesterterpene	Cytotoxic activity	*Scalarispongia sp.*	Dokdo (island), Republic of Korea	[37]	New
Scalaradial	Sesterterpene	Inhibitor of Transient Receptor Potential Melastatin 2 (TRPM2) Ion Channels	*Cacospongia sp.*	Pupukea, Beach Park, Oahu, Hawaii	[38]	Known

12-Deacetylscalaradial	Sesterterpene	Inhibitor of Transient Receptor Potential Melastatin 2 (TRPM2) Ion Channels	*Cacospongia sp.*	Pupukea, Beach Park, Oahu, Hawaii	[38]	Known
Cacolide A	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolide B	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolide C	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolide D	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolide E	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolide F	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolide G	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolide H	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolide I	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolide J	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolide K	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolide L	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolic acid A	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolic acid B	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
Cacolic acid C	Sesterterpene	NA	*Cacospongia sp.*	Australia	[39]	New
(+)-Cavernosine	Norditerpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	Known
(-)-Cavernosine	Norditerpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	Known
(+)-8,13-Secocavernosine	Norditerpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	Known
(-)-8,13-Secocavernosine	Norditerpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	Known

(+)-8,13-Secoepicavernosine	Norditerpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	New
(-)-8,13-Secoepicavernosine	Norditerpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	New
(+)-Hippolide E	Sesterterpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	New
(-)-Hippolide E	Sesterterpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	New
(+)-(6*E*)-neomanoalide	Sesterterpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	New
(-)-(6*E*)-neomanoalide	Sesterterpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	New
(*3R,4R*)-14,18-Secoluffariolide C	Sesterterpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	New
Cacospongine A	C21 pyridine terpenoid	NA	*Cacospongia sp.*	Yong Xing Island	[40]	New
Luffariolide C	Sesterterpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	known
(Z)-neomanoalide	Sesterterpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	known
Hippolide J	Sesterterpene	NA	*Cacospongia sp.*	Yong Xing Island	[40]	known
(−)-Zampanolide	Macrolide	Cytotoxic activity	*Cacospongia mycofijiensis*	Cathedral Cave, Tonga	[41]	Known
Zampanolide B	Macrolide	Cytotoxic activity	*Cacospongia mycofijiensis*	Cathedral Cave, Tonga	[41]	New
Zampanolide C	Macrolide	Cytotoxic activity	*Cacospongia mycofijiensis*	Cathedral Cave, Tonga	[41]	New
Zampanolide D	Macrolide	Cytotoxic activity	*Cacospongia mycofijiensis*	Cathedral Cave, Tonga	[41]	New
Zampanolides E	Macrolide	Cytotoxic activity	*Cacospongia mycofijiensis*	Cathedral Cave, Tonga	[41]	New
(−)-Dactylolide	Macrolide	Cytotoxic activity	*Cacospongia mycofijiensis*	Cathedral Cave, Tonga	[41]	Known

Thiopyrone CTP-431	Nitrogenous compound	NA	*Cacospongia mycofijiensis*	Fiji islands	[42]	New
Phyllospongin A	Sesterterpene	Cytotoxic activity &Antibacterial activity	*Phyllospongia lamellosa*	Shaab Saad area, Hurghada along the Red Sea Coast	[43]	New
Phyllospongin B	Sesterterpene	Cytotoxic activity &Antibacterial activity	*Phyllospongia lamellosa*	Shaab Saad area, Hurghada along the Red Sea Coast	[43]	New
Phyllospongin C	Sesterterpene	Cytotoxic activity &Antibacterial activity	*Phyllospongia lamellosa*	Shaab Saad area, Hurghada along the Red Sea Coast	[43]	New
Phyllospongin D	Sesterterpene	Cytotoxic activity &Antibacterial activity	*Phyllospongia lamellosa*	Shaab Saad area, Hurghada along the Red Sea Coast	[43]	New
Phyllospongin E	Sesterterpene	Cytotoxic activity &Antibacterial activity	*Phyllospongia lamellosa*	Shaab Saad area, Hurghada along the Red Sea Coast	[43]	New
12a-Acetoxy-20,24-dimethyl-25-norscalar-16-en-24-one	Sesterterpene	Cytotoxic activity &Antibacterial activity	*Phyllospongia lamellosa*	Shaab Saad area, Hurghada along the Red Sea Coast	[43]	Known
12a-Acetoxy-13b,18b-cyclobutan-20,24-dimethyl-24-oxoscalar-16-en-25b-ol	Sesterterpene	Cytotoxic activity &Antibacterial activity	*Phyllospongia lamellosa*	Shaab Saad area, Hurghada along the Red Sea Coast	[43]	Known
12a-Acetoxy-24,25-epoxy-24-hydroxy-20,24-dimethylscalarane	Sesterterpene	Cytotoxic activity &Antibacterial activity	*Phyllospongia lamellosa*	Shaab Saad area, Hurghada along the Red Sea Coast	[43]	Known

Scalardysin-A	Sesterterpene	Cytotoxic activity &Antibacterial activity	*Phyllospongia lamellosa*	Shaab Saad area, Hurghada along the Red Sea Coast	[43]	Known
2-(3′,5′-Dibromo-2′-methoxyphenoxy)-3,5-dibromophenol	Halogenated compound	Antibacterial activity	*Phyllospongia papyracea*	The natural products repository of the National Cancer Institute (NCI)	[44]	Known
Phyllactone A	Sesterterpene	Cytotoxic activity	*Phyllospongia papyrecea*	Sangihe Island, Indonesia	[45]	Known
Phyllactone B	Sesterterpene	Cytotoxic activity	*Phyllospongia papyrecea*	Sangihe Island, Indonesia	[45]	Known
Phyllactone D	Sesterterpene	Cytotoxic activity	*Phyllospongia papyrecea*	Sangihe Island, Indonesia	[45]	Known
Phyllactone E	Sesterterpene	Cytotoxic activity	*Phyllospongia papyrecea*	Sangihe Island, Indonesia	[45]	Known
Phyllactone F	Sesterterpene	Cytotoxic activity	*Phyllospongia papyrecea*	Sangihe Island, Indonesia	[45]	Known
Phyllactone G	Sesterterpene	Cytotoxic activity	*Phyllospongia papyrecea*	Sangihe Island, Indonesia	[45]	Known
12*α*, 24-Dihydroxy-20, 24-dimethyl-15, 17-scalaradien-25,24-olide	Sesterterpene	Cytotoxic activity	*Phyllospongia papyrecea*	Sangihe Island, Indonesia	[45]	Known
Phyllactone H	Sesterterpene	Cytotoxic activity	*Phyllospongia papyrecea*	Sangihe Island, Indonesia	[45]	New
12*α*-Acetoxy-22-hydroxy-24-methyl-24-oxoscalar-16-en-25-al	Sesterterpene	Antiproliferative activity	*Carteriospongia sp.*	The coast of Nosy Be, Madagascar	[46]	Known
16*β*,22-Dihydroxy-24-methyl-24-oxoscalaran-25,12β-olactone	Sesterterpene	NA	*Carteriospongia sp.*	The coast of Nosy Be, Madagascar	[46]	Known
12*α*,22-Dihydroxy-24-methyl-24-oxoscalar-16-en-25α-al	Sesterterpene	Antiproliferative activity	*Closely similar species to Carteriospongia sp.designated NB-04-06-17*	The coast of Nosy Be, Madagascar	[46]	New
12*β*,22-Dihydroxy-24-methyl-24-oxoscalar-16-en-25β-al	Sesterterpene	Antiproliferative activity	*Closely similar species to Carteriospongia sp.designated NB-04-06-17*	The coast of Nosy Be, Madagascar	[46]	New

12*β*,22-Dihydroxy-24-oxo-24-homoscalara-16,25(26)-diene	Sesterterpene	Antiproliferative activity	*Closely similar species to Carteriospongia sp.designated NB-04-06-17*	The coast of Nosy Be, Madagascar	[46]	New
12*β*,22,24ε-Trihydroxy-24-methylscalar-17-ene-18,24-carbolactone	Sesterterpene	Antiproliferative activity	*Closely similar species to Carteriospongia sp.designated NB-04-06-17*	The coast of Nosy Be, Madagascar	[46]	New
Carteriofenone A	Sesterterpene	Cytotoxic activity (Insignificant)	*Carteriospongia foliascens*	Dongluoxigu Island, the South China Sea	[47]	New
Carteriofenone B	Sesterterpene	Cytotoxic activity (Insignificant)	*Carteriospongia foliascens*	Dongluoxigu Island, the South China Sea	[47]	New
Carteriofenone C	Sesterterpene	Cytotoxic activity (Insignificant)	*Carteriospongia foliascens*	Dongluoxigu Island, the South China Sea	[47]	New
Carteriofenone D	Sesterterpene	Cytotoxic activity	*Carteriospongia foliascens*	Dongluoxigu Island, the South China Sea	[47]	New
Carteriofenone E	Sesterterpene	Cytotoxic activity	*Carteriospongia foliascens*	Dongluoxigu Island, the South China Sea	[47]	New
Carteriofenone F	Sesterterpene	Cytotoxic activity	*Carteriospongia foliascens*	Dongluoxigu Island, the South China Sea	[47]	New
Carteriofenone G	Sesterterpene	Cytotoxic activity	*Carteriospongia foliascens*	Dongluoxigu Island, the South China Sea	[47]	New

Carteriofenone H	Sesterterpene	Cytotoxic activity	*Carteriospongia foliascens*	Dongluoxigu Island, the South China Sea	[47]	New
Carteriofenone I	Sesterterpene	Cytotoxic activity	*Carteriospongia foliascens*	Dongluoxigu Island, the South China Sea	[47]	New
Carteriofenone J	Sesterterpene	Cytotoxic activity	*Carteriospongia foliascens*	Dongluoxigu Island, the South China Sea	[47]	New
Carteriofenone K	Sesterterpene	Cytotoxic activity	*Carteriospongia foliascens*	Dongluoxigu Island, the South China Sea	[47]	New
Phyllofenone B	Sesterterpene	Cytotoxic activity	*Carteriospongia foliascens*	Dongluoxigu Island, the South China Sea	[47]	known
Phyllofenone E	Sesterterpene	Cytotoxic activity	*Carteriospongia foliascens*	Dongluoxigu Island, the South China Sea	[47]	known
12*β*-(3′*β*-Hydroxybutanoyloxy)-20,24-dimethyl-24-oxo-scalara-16-en-25-al	Sesterterpene,	Antileukemic activity	*Carteriospongia sp.*	The coast of Tai-tung, Taiwan	[48]	New
12*β*-(3′*β*-Hydroxypentanoyloxy)-20,24-dimethyl-24-oxo-scalara-16-en-25-al	Sesterterpene,	Antileukemic activity	*Carteriospongia sp.*	The coast of Tai-tung, Taiwan	[48]	New
2-Tetraprenil-1,4-benzochinone	Meroditerpene	Antileukemic activity	*Carteriospongia sp.*	The coast of Tai-tung, Taiwan	[48]	Known

Puupehenol	Meroterpene	Antioxidant - Antimicrobial	*Dactylospongia sp.*	Hawaiian island of Maui	[49]	New
Puupehenone	Meroterpene	Antioxidant - Antimicrobial	*Dactylospongia sp.*	Hawaiian island of Maui	[49]	Known
Dactylospongin A	Sesquiterpene	Anti-inflammatory activity	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	New
Dactylospongin B	Sesquiterpene	Anti-inflammatory activity	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	New
Dactylospongin C	Sesquiterpene	NA	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	New
Dactylospongin D	Sesquiterpene	Anti-inflammatory activity	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	New
ent-Melemeleone B	Sesquiterpene	Anti-inflammatory activity	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	known
Melemeleone C	Sesquiterpene	NA	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	New

Melemeleone D	Sesquiterpene	NA	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	New
Melemeleone E	Sesquiterpene	NA	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	New
Dysidaminone N	Sesquiterpene	Anti-inflammatory activity	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	New
19-*O*-Methylpelorol	Sesquiterpene	Cytotoxic activity - Anti-inflammatory activity	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	New
Pelorol	Sesquiterpene	NA	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	known
			Dactylospongia elegans	The island of Ambon, Indonesia	[51]	
		Antimalarial activity	*Hyrtios erectus*	Chuuk Island, Federated States of Micronesia	[19]	
17-O-Acetylavarol	Sesquiterpene	NA	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	known
20-*O*-Acetylavarol	Sesquiterpene	NA	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	known
20-*O*-Acetylneoavarol	Sesquiterpene	NA	*Dactylospongia sp*	Xisha Island of South China Sea	[50]	known

5-*epi*-nakijiquinone S	Sesquiterpene	Cytotoxic activity protein kinase inhibitory activity	*Dactylospongia metachromia*	Ambon islands, Indonesia	52	New
5-epinakijiquinone Q	Sesquiterpene	Cytotoxic activity protein kinase inhibitory activity	*Dactylospongia metachromia*	Ambon islands, Indonesia	52	New
		Antimicrobial activity	*Dactylospongia elegans*	Ambon islands, Indonesia	51	
5-epinakijiquinone T	Sesquiterpene	Cytotoxic activity protein kinase inhibitory activity	*Dactylospongia metachromia*	Ambon islands, Indonesia	52	New
5-epi-nakijiquinone U	Sesquiterpene	Cytotoxic activity protein kinase inhibitory activity	*Dactylospongia metachromia*	Ambon islands, Indonesia	52	New
5-epi-nakijiquinone N	Sesquiterpene	Cytotoxic activity protein kinase inhibitory activity	*Dactylospongia metachromia*	Ambon islands, Indonesia	52	New
5-epi-nakijinol C	Sesquiterpene	Protein kinase inhibitory activity	*Dactylospongia metachromia*	Ambon islands, Indonesia	52	New
5-epi-nakijinol D	Sesquiterpene	Protein kinase inhibitory activity	*Dactylospongia metachromia*	Ambon islands, Indonesia	52	New
18-Hydroxy-5-epihyrtiophenol	Sesquiterpene	Protein kinase inhibitory activity	*Dactylospongia metachromia*	Ambon islands, Indonesia	52	Known

1-*O*-13-Methyltetradecylglycerol	Miscellaneous compound	NA	*Dactylospongia metachromia*	Ambon islands, Indonesia	52	Known
Ilimaquinone	Sesquiterpene	Inhibits protein transport between successive Golgi cisternae by inducing the vesiculation of Golgi membranes - Antitumor (antiproliferative) at high concentration - antimicrobial activity	*Dactylospongia elegans*	The coast of Malaysia & Palau	53	Known
			Dactylospongia elegans	Sangihe Islands, North Sulawesi Province, Indonesia	54	
		Anti-inflammatory activity	*Smenospongia cerebriformis*	Vinhmoc, Quangtri	32	
		Antimalarial activity	*Hyrtios erectus*	Chuuk Island, Federated States of Micronesia	19	
5,8- Diepi-ilimaquinone	Sesquiterpene	HIF-1 activator - Antitumor	*Dactylospongia elegans*	The coast of Malaysia & Palau	53	New
4,5-Diepi-dactylospongiaquinone	Sesquiterpene	HIF-1 activator - Antitumor	*Dactylospongia elegans*	The coast of Malaysia & Palau	53	New

8-*epi*-Dactyloquinone B	Sesquiterpene	Antitumor	*Dactylospongia elegans*	The coast of Malaysia & Palau	[53]	New
10,17-*O*-Cyclo-4,5-diepi-dactylospongiaquinone	Sesquiterpene	Antitumor	*Dactylospongia elegans*	The coast of Malaysia & Palau	[53]	New
Cyclospongiacatechol	Sesquiterpene	Antitumor	*Dactylospongia elegans*	The coast of Malaysia & Palau	[53]	New
8-*epi*-ent-chromazonarol	Sesquiterpene	NA	*Dactylospongia elegans*	The coast of Malaysia & Palau	[53]	Known
Cyclospongiaquinone-1	Sesquiterpene	Antitumor	*Dactylospongia elegans*	The coast of Malaysia & Palau	[53]	Known
Cyclospongiaquinone-2	Sesquiterpene	Antitumor	*Dactylospongia elegans*	The coast of Malaysia & Palau	[53]	Known
19*R*-Dactyltronic acid	Sesquiterpene	Antibacterial activity	*Dactylospongia elegans*	Sanya, China	[55]	Known
19*S*-Dactyltronic acid	Sesquiterpene	Antibacterial activity	*Dactylospongia elegans*	Sanya, China	[55]	Known

Dictyoceratin C	Sesquiterpene	Antibacterial activity	*Dactylospongia elegans*	Sanya, China	[55]	Known
			Dactylospongia elegans	Sangihe Islands, North Sulawesi Province, Indonesia	[54]	
		Anti-inflammatory activity	*Smenospongia cerebriformis*	Vinhmoc, Quangtri	[32]	
Polyfibrospongol A	Sesquiterpene	Antibacterial activity	*Dactylospongia elegans*	Sanya, China	[55]	Known
		Anti-inflammatory activity	*Smenospongia cerebriformis*	Vinhmoc, Quangtri	[32]	
3 -Hydroxycholesta-5,8-dien-7-one	Sterol	Antibacterial activity	*Dactylospongia elegans*	Sanya, China	[55]	Known
Pregna-1,20-dien-3-one	Sterol	Antibacterial activity	*Dactylospongia elegans*	Sanya, China	[55]	Known
Eleganstone A	Diterpene	Weak antibacterial activity	*Dactylospongia elegans*	Yongxing Island, China	[56]	New
(1*R**,2*E*,4*R**,7*E*,10*S**,11*S**,12*R**)-10,18-Diacetoxydolabella-2,7-dien-6-one	Terpene	Weak antibacterial activity	*Dactylospongia elegans*	Yongxing Island, China	[56]	known
(1*R**,2*E*,4*R**,8*E*,10*S**,11*S**,12*R**)-10,18-diacetoxydolabella-2,8- dien-6-one	Diterpene	Weak antibacterial activity	*Dactylospongia elegans*	Yongxing Island, China	[56]	New
(1*R**,2*E*,4*R**,7*Z*,10*S**,11*S**,12*R**)-10,18-Diacetoxydolabella-2,7-dien-6-one	Diterpene	Weak antibacterial activity	*Dactylospongia elegans*	Yongxing Island, China	[56]	known
Dactylospongenone G	Drimane meroterpene	NA	*Dactylospongia elegans*	The island of Ambon, Indonesia	[51]	New
Dactylospongenone H	Drimane meroterpene	NA	*Dactylospongia elegans*	The island of Ambon, Indonesia	[51]	New
5-*epi*-ilimaquinone	Sesquiterpene	Cytotoxic activity	*Dactylospongia elegans*	The island of Ambon, Indonesia	[51]	known
5-*epi*-smenospongine	Sesquiterpene	NA	*Dactylospongia elegans*	The island of Ambon, Indonesia	[51]	known
5-*epi*-smenospongidine	Sesquiterpene	Cytotoxic activity	*Dactylospongia elegans*	The island of Ambon, Indonesia	[51]	known

Nakijiquinone D	Sesquiterpene	NA	*Dactylospongia elegans*	The island of Ambon, Indonesia	[51]	known
Smenospongine C	Sesquiterpene	NA	*Dactylospongia elegans*	The island of Ambon, Indonesia	[51]	known
Isospongiaquinone	Sesquiterpene	Cytotoxic activity	*Dactylospongia elegans*	The island of Ambon, Indonesia	[51]	known
Isosmenospongine	Sesquiterpene	Cytotoxic activity - Antimicrobial activity	*Dactylospongia elegans*	The island of Ambon, Indonesia	[51]	known
Nakijiquinone A	Sesquiterpene	Cytotoxic activity	*Dactylospongia elegans*	The island of Ambon, Indonesia	[51]	known
Nakijiquinone B	Sesquiterpene	NA	*Dactylospongia elegans*	The island of Ambon, Indonesia	[51]	known
Nakijiquinone C	Sesquiterpene	NA	*Dactylospongia elegans*	The island of Ambon, Indonesia	[51]	known
Nakijiquinone A	Sesquiterpene	Cytotoxic activity	*Dactylospongia elegans*	The island of Ambon, Indonesia	[51]	known
(3*S*,5*R*,9*R*,10*S*,13*R*,17*R*,20*R*,24*S*,22*E*)-ergosta-6,8,22-triene-3,25-diol	Sterol	Cytotoxic activity	*Dactylospongia elegans*	Xisha islands, China	[57]	New
(3*S*,5*R*,9*R*,10*S*,13*R*,17*R*,20*R*,24*S*,22*E*)-ergosta-6,8,22-triene-25-ol-3-sulfonate	Sterol	Cytotoxic activity	*Dactylospongia elegans*	Xisha islands, China	[57]	New
5α,8α-epidioxy-cholest-6-en-3β-ol	Sterol	NA	*Dactylospongia elegans*	Xisha islands, China	[57]	known
Popolohuanone G	Sesquiterpene	Anti-inflammatory activity	*Dactylospongia elegans*	Xisha islands, China	[58]	New
Popolohuanone H	Sesquiterpene	Anti-inflammatory activity	*Dactylospongia elegans*	Xisha islands, China	[58]	New

Popolohuanone I	Sesquiterpene	Anti-inflammatory activity	*Dactylospongia elegans*	Xisha islands, China	[58]	New
Popolohuanone B	Sesquiterpene	Anti-inflammatory activity	*Dactylospongia elegans*	Xisha islands, China	[58]	known
Popolohuanone C	Sesquiterpene	Anti-inflammatory activity	*Dactylospongia elegans*	Xisha islands, China	[58]	known
Nakijiquinone V	Merosesquiterpene	NA	*Dactylospongia elegans*	Sangihe Islands, North Sulawesi Province, Indonesia	[54]	New
Smenospongine	Merosesquiterpene	Antimicrobial activity	*Dactylospongia elegans*	Sangihe Islands, North Sulawesi Province, Indonesia	[54]	Known
20-demethoxy-20-isopentylaminodactyloquinone D	Sesquiterpene	NA	*Dactylospongia elegans*	Not detected	[59]	New
20-demethoxy-20-isobutylaminodactyloquinone D	Sesquiterpene	NA	*Dactylospongia elegans*	Not detected	[59]	New
19-methoxy-dictyoceratin-A	Sesquiterpene	Cytotoxic activity	*Dactylospongia elegans*	Not detected	[59]	New
(+)-Spiroreticulatine	Nitrogenous compound	Inhibitory activity on Interleukin-2 production but inactive against normal tumor cell lines	*Fascaplysinopsis reticulata*	The South China Sea	[60]	New

(−)-Spiroreticulatine	Nitrogenous compound	Inhibitory activity on Interleukin-2 production but inactive against normal tumor cell lines	*Fascaplysinopsis reticulata*	The South China Sea	[60]	New
Clavirolide H	Diterpene	Cytotoxic activity (Not significant)	*Fascaplysinopsis reticulata*	Xisha islands, China	[61]	New
Clavirolide D	Diterpene	NA	*Fascaplysinopsis reticulata*	Xisha islands, China	[61]	Known
Clavulactone	Diterpene	NA	*Fascaplysinopsis reticulata*	Xisha islands, China	[61]	Known
Cavernosine	C17 γ-lactone terpene	Cytotoxic activity	*Fascaplysinopsis reticulata*	Xisha islands, China	[61]	Known
Dihydrodysamide C	Nitrogenous compound	Cytotoxic activity	*Fascaplysinopsis reticulata*	Xisha islands, China	[61]	Known
(22*E*)-cholesta-4,6,8(14),22-tetraen-3-one	Sterol	Cytotoxic activity	*Fascaplysinopsis reticulata*	Xisha islands, China	[61]	Known
Cholesta-4,6,8(14)-trien-3-one	Sterol	NA	*Fascaplysinopsis reticulata*	Xisha islands, China	[61]	Known
(22*E*)-ergosta-4,6,8(14),22-tetraen-3-one	Sterol	NA	*Fascaplysinopsis reticulata*	Xisha islands, China	[61]	Known
(24*E*)- stigmasta-4,6,8(14),24(28)-tetraen-3-one	Sterol	Cytotoxic activity (Not significant)	*Fascaplysinopsis reticulata*	Xisha islands, China	[61]	Known
(24*S*)-ergosta-4,6,8(14)-trien-3-one	Sterol	Cytotoxic activity	*Fascaplysinopsis reticulata*	Xisha islands, China	[61]	Known
(22*E*)-stigmasta-4,6,8(14),22-tetraen-3-one	Sterol	Cytotoxic activity	*Fascaplysinopsis reticulata*	Xisha islands, China	[61]	Known
C(24)-epimeric mixture of stigmasta-4,6,8(14)-trien-3-one	Sterol	Cytotoxic activity	*Fascaplysinopsis reticulata*	Xisha islands, China	[61]	Known
6,60-bis-(debromo)-gelliusine F	Nitrogenous compound	Antimicrobial activity	*Fascaplysinopsis reticulata*	Mayotte	[62]	New
6-Bromo-8,1'-dihydro-isoplysin A	Nitrogenous compound	Antimicrobial activity	*Fascaplysinopsis reticulata*	Mayotte	[62]	New

5,6-Dibromo-8,1'-dihydro-isoplysin A	Nitrogenous compound	Antimicrobial activity	*Fascaplysinopsis reticulata*	Mayotte	[62]	New
8-Oxo-tryptamine	Nitrogenous compound	Moderate antimalarial activity	*Fascaplysinopsis reticulata*	Mayotte	[62]	Known
Tryptamine	Nitrogenous compound	Antimicrobial activity	*Fascaplysinopsis reticulata*	Mayotte	[62]	Known
(*E*)-6-Bromo-20-demethyl-30-N-methylaplysinopsin	Nitrogenous compound	Moderate antimalarial activity	*Fascaplysinopsis reticulata*	Mayotte	[62]	Known
(*Z*)-6-Bromo-20-demethyl-30-N-methylaplysinopsin	Nitrogenous compound	Moderate antimalarial activity	*Fascaplysinopsis reticulata*	Mayotte	[62]	Known
(+)& (−)Oxoaplysinopsin A	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	New
(+)& (−)Oxoaplysinopsin B	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	New
(+)& (−)Oxoaplysinopsin C	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	New
(+)& (−)Oxoaplysinopsin D	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	New

(+)& (−)Oxoaplysinopsin E	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	New
(+)& (−)Oxoaplysinopsin F	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	New
(+)& (−)Oxoaplysinopsin G	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	New
(*Z*)-3′-Deimino-3′-oxoaplysinopsin	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	Known
(*E*)-3′-Deimino-3′-oxoaplysinopsin	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	Known
(*E*)-3-Indolylpropenoate	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	Known

Indolyl-3-acetic acid methyl ester	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	Known
3-Methoxycarbonylindole	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	Known
3-Formylindole	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	Known
			Hyrtios erectus	The Red Sea Coast, Jeddah	[8]	
3, 5-Dibromoverongiaquinol dimethyl ketal	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	Known
Purealidin R	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	Known
Aerothionin	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	Known
Homoaerothionin	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	Known
Subereamolline C	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	New
Subereamolline D	Nitrogenous compound	Cytotoxic activity & tyrosine phosphatase 1B (PTP1B) inhibition activity	*Fascaplysinopsis reticulata*	Xisha Island of South China Sea	[63]	New

Luffalide A	Sesterterpene	NA	*Luffariella sp.*	The western coast of Pingtung county	[64]	New
Luffalide B	Sesterterpene	NA	*Luffariella sp.*	The western coast of Pingtung county	[64]	New
Luffalide C	Sesterterpene	NA	*Luffariella sp.*	The western coast of Pingtung county	[64]	New
Luffalide D	Sesterterpene	NA	*Luffariella sp.*	The western coast of Pingtung county	[64]	New
Luffalide E	Sesterterpene	Cytotoxic activity	*Luffariella sp.*	The western coast of Pingtung county	[64]	New
Luffalide F	Sesterterpene	NA	*Luffariella sp.*	The western coast of Pingtung county	[64]	New
Z-24-Acetoxyneomanoalide	Sesterterpene	NA	*Luffariella sp.*	The western coast of Pingtung county	[64]	Known

(*Z*)- neomanoalide 24,25-diacetate	Sesterterpene	Cytotoxic activity	*Luffariella sp.*	The western coast of Pingtung county	[64]	Known
Luffariellin B	Sesterterpene	Cytotoxic activity	*Luffariella sp.*	The western coast of Pingtung county	[64]	Known
25- Acetoxyluffariellin A	Sesterterpene	Cytotoxic activity	*Luffariella sp.*	The western coast of Pingtung county	[64]	Known
Cacofuran A	Diterpene	NA	*Luffariella sp.*	Cape Hedo, Okinawa	[65]	Known
Cacofuran B	Diterpene	NA	*Luffariella sp.*	Cape Hedo, Okinawa	[65]	Known
(3b*R*,7*S*,9a*S*)-3b,6,6,9a-tetramethyl-3b,4,5,5a,6,7,8,9,9a,9b,10,11-dodecahydrophenanthro[1,2-b]furan-7-ol	Diterpene	Cytotoxic activity	*Luffariella sp.*	Cape Hedo, Okinawa	[65]	New
(3b*R*,7*S*,9a*S*)-3b,6,6,9a-tetramethyl-3b,4,5,5a,6,7,8,9,9a,9b,10,11-dodecahydrophenanthro[1,2-b]furan-7-yl acetate	Diterpene	Cytotoxic activity	*Luffariella sp.*	Cape Hedo, Okinawa	[65]	New
Variabine A	Nitrogenous compound	Inhibition of chymotrypsin-like activity of the proteasome and Ubc13 (E2)–Uev1A interaction	*Luffariella variabilis*	North Sulawesi, Indonesia	[21]	New

5-((2*E*,6*E*)-7-((*Z*)-4-(3-(furan-3-yl)propylidene)tetrahydrofuran-2-yl)hepta-2,6-dien-1-yl)furan-3-carboxylic acid	Sesterterpene	Cytotoxic activity	*Luffariella variabilis*	Iriomote Island, Okinawa	[66]	New
6-(5-(2-(furan-3-yl)ethyl)-6-hydroxy-1,4a,6-trimethyldecahydronaphthalen-1-yl)-3-methyl-5,6-dihydro-2H-pyran-2-one	Sesterterpene	Cytotoxic activity	*Luffariella variabilis*	Iriomote Island, Okinawa	[66]	New
B- Family: Dysideidae						
5′-Monoacetylavarol	Sesquiterpene	NA	*Dysidea avara*	The Northwest Mediterranean sea	[67]	Known
(+)-Avarone	Sesquiterpene	Cytotoxic activity - NF-κB inhibiting activity - protein kinase inhibition - Insecticidal activity	*Dysidea avara*	Mediterranean Sea (Fethiye,Turkey)	[68]	known
(-)-3'-Methylaminoavarone	Sesquiterpene	Cytotoxic activity - NF-κB inhibiting activity - protein kinase inhibition - Insecticidal activity	*Dysidea avara*	Mediterranean Sea (Fethiye,Turkey)	[68]	known
(-)-4'-Methylaminoavarone	Sesquiterpene	Cytotoxic activity - NF-κB inhibiting activity	*Dysidea avara*	Mediterranean Sea (Fethiye,Turkey)	[68]	known

(-)-N-Methylmelemeleone-A	Sesquiterpene	Cytotoxic activity - protein kinase inhibition - Insecticidal activity	*Dysidea avara*	Mediterranean Sea (Fethiye,Turkey)	[68]	New
Dysideanone A	Sesquiterpene	NA	*Dysidea avara*	The south China sea	[69]	New
Dysideanone B	Sesquiterpene	Cytotoxic activity	*Dysidea avara*	The south China sea	[69]	New
Dysideanone C	Sesquiterpene	NA	*Dysidea avara*	The south China sea	[69]	New
Dysiquinol A	Sesquiterpene	Cytotoxic activity	*Dysidea avara*	The south China sea	[70]	New
Dysiquinol B	Sesquiterpene	Cytotoxic activity	*Dysidea avara*	The south China sea	[70]	New
Dysiquinol C	Sesquiterpene	Cytotoxic activity	*Dysidea avara*	The south China sea	[70]	New
Dysiquinol D	Sesquiterpene	Cytotoxic - NF-kB inhibitory activity	*Dysidea avara*	The south China sea	[70]	New
(5*S*,8*S*,9*R*,10*S*)-18-Ethoxyneoavarone	Sesquiterpene	Cytotoxic activity	*Dysidea avara*	The south China sea	[70]	New
(5*S*,8*S*,9*R*,10*S*)-19-Ethoxyneoavarone	Sesquiterpene	Cytotoxic activity	*Dysidea avara*	The south China sea	[70]	New

(5*R*,8*R*,9*S*,10*R*)-18-Ethoxyavarone	Sesquiterpene	Cytotoxic activity	*Dysidea avara*	The south China sea	[70]	New
(5*R*,8*R*,9*S*,10*R*)-19-Ethoxyavarone	Sesquiterpene	Cytotoxic activity	*Dysidea avara*	The south China sea	[70]	New
Avarol	Sesquiterpene	Cytotoxic activity	*Dysidea avara* - .	The south China sea	[70]	Known
		Cytotoxic activity - NF-κB inhibiting activity - protein kinase inhibition - Insecticidal activit	*Dysidea avara*	Mediterranean Sea (Fethiye,Turkey)	[68]	
			Dysidea avara		[69]	
		NA	*Dysidea avara*	The Northwest Mediterranean sea	[67]	
		Protein Tyrosine Phosphatase 1B Inhibitory Activity	*Dysidea sp*	Iriomote Island, Okinawa, Japan	[71]	
Biaketide	Miscellaneous compound	Cytotoxic activity	*Dysidea sp*	Biak, West Papua, Indonesia	[72]	New
Debromoantazirine	Nitrogenous compound (azirine) derivative	Cytotoxic activity	*Dysidea sp*	Biak, West Papua, Indonesia	[72]	New
Antazirine	Nitrogenous compound (azirine) derivative	NA	*Dysidea sp*	Biak, West Papua, Indonesia	[72]	Known
Dysidazirine	Nitrogenous compound (azirine) derivative	NA	*Dysidea sp*	Biak, West Papua, Indonesia	[72]	Known

neoavarol	Sesquiterpene	NA	*Dysidea sp*	Biak, West Papua, Indonesia	[72]	Known
		Protein Tyrosine Phosphatase 1B Inhibitory Activity	*Dysidea sp*	Iriomote Island, Okinawa, Japan.	[71]	
Frondosin	Miscellaneous compound	NA	*Dysidea sp*	Biak, West Papua, Indonesia	[72]	Known
Dysidinoid A	Meroterpene	Antibacterial activity	*Dysidea sp.*	Yongxing Island, Xiasha	[73]	New
2-(20,40-Dibromophenoxy)-4,6-dibromophenol	Halogenated compound	Antibacterial activity	*Dysidea sp.*	not detected	[74]	Known
Aureol B	Meroterpene	Cytotoxic and antimicrobial activities and weak inhibition against Na+/K+-ATPase	*Dysidea sp.*	Federated States of Micronesia	[75]	New
Melemeleone C	Meroterpene	Cytotoxic and antimicrobial activities and weak inhibition against Na+/K+-ATPase	*Dysidea sp.*	Federated States of Micronesia	[75]	New
Melemeleone D	Meroterpene	Cytotoxic and antimicrobial activities and weak inhibition against Na+/K+-ATPase	*Dysidea sp.*	Federated States of Micronesia	[75]	New
Cycloaurenone A	Meroterpene	Cytotoxic and antimicrobial activities and weak inhibition against Na+/K+-ATPase	*Dysidea sp.*	Federated States of Micronesia	[75]	New

Cycloaurenone B	Meroterpene	Cytotoxic and antimicrobial activities and weak inhibition against Na+/K+-ATPase	*Dysidea sp.*	Federated States of Micronesia	[75]	New
Cycloaurenone C	Meroterpene	Cytotoxic and antimicrobial activities and weak inhibition against Na+/K+-ATPase	*Dysidea sp.*	Federated States of Micronesia	[75]	New
Arenarol	Drimane sesquiterpene	Cytotoxic and antimicrobial activities and weak inhibition against Na+/K+-ATPase	*Dysidea sp.*	Federated States of Micronesia	[75]	Known
Dysidphenol A	Sesquiterpene	Antibacterial	*Dysidea species*	The south China sea	[76]	New
Dysidphenol B	Sesquiterpene	NA	*Dysidea species*	The south China sea	[76]	New
Dysidphenol C	Sesquiterpene	Antibacterial	*Dysidea species*	The south China sea	[76]	New
Smenospongimine	Sesquiterpene	Antibacterial	*Dysidea species*	The south China sea	[76]	New
Smenospongine	Sesquiterpene	Antibacterial	*Dysidea species*	The south China sea	[76]	Known
Smenospongorine	Sesquiterpene	Antibacterial	*Dysidea species*	The south China sea	[76]	Known
Smenospongiarine	Sesquiterpene	Antibacterial	*Dysidea species*	The south China sea	[76]	Known
Smenospongidine	Sesquiterpene	Antibacterial	*Dysidea species*	The south China sea	[76]	Known

Avapyran	Sesquiterpene	Protein Tyrosine Phosphatase 1B Inhibitory Activity	*Dysidea sp.*	Iriomote Island, Okinawa, Japan.	[71]	New
17-*O*-Acetylavarol	Sesquiterpene	Protein Tyrosine Phosphatase 1B Inhibitory Activity	*Dysidea sp.*	Iriomote Island, Okinawa, Japan.	[71]	New
17-*O*-Acetylneoavarol	Sesquiterpene	Protein Tyrosine Phosphatase 1B Inhibitory Activity	*Dysidea sp.*	Iriomote Island, Okinawa, Japan.	[71]	New
20-*O*-Acetylavarol	Sesquiterpene	Protein Tyrosine Phosphatase 1B Inhibitory Activity	*Dysidea sp.*	Iriomote Island, Okinawa, Japan.	[71]	Known
20-*O*-Acetylneoavarol	Sesquiterpene	Protein Tyrosine Phosphatase 1B Inhibitory Activity	*Dysidea sp.*	Iriomote Island, Okinawa, Japan.	[71]	Known
3'-Aminoavarone	Sesquiterpene	Protein Tyrosine Phosphatase 1B Inhibitory Activity	*Dysidea sp.*	Iriomote Island, Okinawa, Japan.	[71]	Known
Dysiroid A	Sterol	Antibacterial activity	*Dysidea sp.*	Dongshan Island, Guangdong Province, PR China	[77]	New
Dysiroid B	Sterol	Antibacterial activity	*Dysidea sp.*	Dongshan Island, Guangdong Province, PR China	[77]	New
(5*R*)-3,15,27-Triacontatriene-1,29-diyn-5-ol	Miscellaneous compound	Antibacterial activity	*Dysidea sp.*	Dongshan Island, Guangdong Province, PR China	[77]	Known
(4*R*,5*R*)-Muurol-1(6),10(14)-diene-4,5-diol	Sesquiterpene	NA	*Dysidea cinerea*	Lang Co beach, Thua Thien Hue, Vietnam	[78]	New

(4*R*,5*R*)-Muurol-1(6)-ene-4,5-diol	Sesquiterpene	NA	*Dysidea cinerea*	Lang Co beach, Thua Thien Hue, Vietnam	[78]	New
(4*R*,5*R*,10*R*)-10-Methoxymuurol-1(6)-ene-4,5-diol	Sesquiterpene	NA	*Dysidea cinerea*	Lang Co beach, Thua Thien Hue, Vietnam	[78]	New
(4*S*)-4-Hydroxy-1,10-seco-muurol-5-ene-1,10-dione	Sesquiterpene	NA	*Dysidea cinerea*	Lang Co beach, Thua Thien Hue, Vietnam	[78]	New
(4*R*)-4-Hydroxy-1,10-seco-muurol-5-ene-1,10-dione	Sesquiterpene	NA	*Dysidea cinerea*	Lang Co beach, Thua Thien Hue, Vietnam	[78]	New
(6*S*,10*S*)-6,10-Dihydroxy-7,8-seco-2,8-cyclo-muurol-4(5),7(11)-diene-12-oic acid	Sesquiterpene	NA	*Dysidea cinerea*	Lang Co beach, Thua Thien Hue, Vietnam	[78]	New
(6*R*,10*S*)-6,10-Dihydroxy-7,8-seco-2,8-cyclo-muurol-4(5),7(11)-diene-12-oic acid	Sesquiterpene	NA	*Dysidea cinerea*	Lang Co beach, Thua Thien Hue, Vietnam	[78]	New
Dysideolide A	Miscellaneous compound	NA	*Dysidea cinerea*	Lang Co beach, Vietnam	[79]	New
Dysideolide B	Miscellaneous compound	NA	*Dysidea cinerea*	Lang Co beach, Vietnam	[79]	New
Dysidaminone A	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	New
Dysidaminone B	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	New
Dysidaminone C	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	New
Dysidaminone D	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	New

Dysidaminone E	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	New
Dysidaminone F	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	New
Dysidaminone G	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	New
Dysidaminone H	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	New
Dysidaminone I	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	New
Dysidaminone J	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	New
Dysidaminone K	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	New
Dysidaminone L	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	New
Dysidaminone M	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	New
18-Methylaminoavarone	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	Known
19-Methylaminoavarone	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	Known
18-Aminoavarone	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	Known
19-Aminoavarone	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	Known
18-Phenethylaminoavarone	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	Known

Popolohuanone D	Sesquiterpene	Cytotoxic & NF-kB inhibitory activities	*Dysidea fragilis*	Yongxing Island, South China Sea	[80]	Known
Dysinidin A	Sesquiterpene	NA	*Dysidea fragilis*	Vandon, Quangninh	[81]	New
Dysinidin B	Sesquiterpene	NA	*Dysidea fragilis*	Vandon, Quangninh	[81]	New
Furodysinin lactone	Sesquiterpene	NA	*Dysidea fragilis*	Vandon, Quangninh	[81]	Known
O-Methyl furodysinin lactone	Sesquiterpene	NA	*Dysidea fragilis*	Vandon, Quangninh	[81]	Known
Dysinidin C	Sesquiterpene	NA	*Dysidea fragilis*	Vandon, Quangninh	[82]	New
Dysinidin D	Sesquiterpene	NA	*Dysidea fragilis*	Vandon, Quangninh	[82]	New
Dysinidin E	Sesquiterpene	NA	*Dysidea fragilis*	Vandon, Quangninh	[82]	New
Dysideasterol F	Sterol	Cytotoxic activity	*Dysidea fragilis*	Vandon, Quangninh	[82]	Known
9α,11α-Epoxycholest-7-en-3β,5α,6α-triol	Sterol	Cytotoxic activity	*Dysidea fragilis*	Vandon, Quangninh	[82]	Known
9α,11α-Epoxycholest-7-en-3β,5α,6α,19-tetrol 6-acetate	Sterol	Cytotoxic activity	*Dysidea fragilis*	Vandon, Quangninh	[82]	Known
Dysifragilone A	Sesquiterpene	Anti-inflammatory activity	*Dysidea fragilis*	Yongxing Island in the South China Sea	[83]	Known
Dysivillosin A	Meroterpene	Antiallergic- Down regulation of production of lipids	*Dysidea villosa*	The south China sea	[84]	New

Dysivillosin B	Meroterpene	Antiallergic- Down regulation of production of lipids	*Dysidea villosa*	The south China sea	[84]	New
Dysivillosin C	Meroterpene	Antiallergic- Down regulation of production of lipids	*Dysidea villosa*	The south China sea	[84]	New
Dysivillosin D	Meroterpene	Antiallergic- Down regulation of production of lipids	*Dysidea villosa*	The south China sea	[84]	New
2-(20,40-Dibromophenoxy)-3,5-dibromophenol	Halogenated compound	Antibacterial activity	*Dysidea granulosa*	Not detected	[74]	Known
2-(20,40-Dibromophenoxy)- 3,4,5-tribromophenol	Halogenated compound	Antibacterial activity	*Dysidea granulosa*	Not detected	[74]	Known
3,5-Dibromo-2-(2,4-dibromophenoxy)phenol	Halogenated compound	Antimicrobial	*Dysidea granulosa*	Papua New Guinea	[85]	known
		Cytotoxic activity	*Dysidea sp.*	Palau Islands-Maumere, Indonesia	[86]	
2,4-dibromo-6-(2,4-dibromophenoxy)phenol	Halogenated compound	Antimicrobial	*Dysidea granulosa*	Papua New Guinea - Palau Islands	[85]	known
3,4,5-Tribromo-2-(2,4-dibromophenoxy)phenol	Halogenated compound	Antimicrobial	*Dysidea granulosa*	Papua New Guinea - Palau Islands	[85]	known
2,3,4-Tribromo-6-(2,4-dibromophenoxy)phenol	Halogenated compound	Antimicrobial	*Dysidea granulosa*	Papua New Guinea - Palau Islands	[85]	known
2,3,4,5-Tetrabromo-6-(2,4-dibromophenoxy)phenol	Halogenated compound	Antimicrobial	*Dysidea granulosa*	Papua New Guinea - Palau Islands	[85]	known

1,5-Dibromo-3-(2,4-dibromophenoxy)-2-methylbenzene	Halogenated compound	NA	*Dysidea granulosa*	Papua New Guinea - Palau Islands	[85]	known
((3a*S*,3b*R*,5a*S*,9a*S*,9b*R*,10*S*)-10-Hydroxy-6,6,9a-trimethyl-1-oxo-1,3,3a,3b,4,5,5a,6,7,8,9,9a,9b,10-tetradecahydrophenanthro[1,2-c]furan-3b-yl)methyl 3-methylbutanoate	Diterpene	Cytotoxic activity	*Dysidea cf. arenaria*	Irabu Island, Okinawa	[87]	New
((3a*R*,3b*R*,5a*S*,9a*S*,9b*R*,10*S*,11a*R*)-10-Hydroxy-6,6,9a-trimethyl-1-oxohexadecahydrophenanthro[1,2-c]furan-3b-yl)methyl 3-methylbutanoate	Diterpene	Cytotoxic activity	*Dysidea cf. arenaria*	Irabu Island, Okinawa	[87]	New
((4a*S*,4b*R*,5*S*,8*S*,8a*S*,10a*S*)-7,8-Diformyl-5-hydroxy-1,1,4a-trimethyl-1,2,3,4,4a,4b,5,8,8a,9,10,10a-dodecahydrophenanthren-8a-yl)methyl 3-methylbutanoate	Diterpene	Cytotoxic activity	*Dysidea cf. arenaria*	Irabu Island, Okinawa	[87]	New
(1*R*,3*R*,4*S*,5*R*,5a*S*,7a*S*,11a*S*,11b*R*,12*R*)-5-Formyl-8,8,11a-trimethyl-5a-(((3-methylbutanoyl)oxy)methyl)tetradecahydro-1,4-methanonaphtho[1,2-c]oxepine-3,12-diyl diacetate	Diterpene	Cytotoxic activity	*Dysidea cf. arenaria*	Irabu Island, Okinawa	[87]	New
Septosone A	Meroterpene	Anti-inflammatory activity	*Dysidea septosa*	The south China sea	[88]	New
Septosone B	Meroterpene	NA	*Dysidea septosa*	The south China sea	[88]	New
Septosone C	Meroterpene	Anti-inflammatory activity (weak)	*Dysidea septosa*	The south China sea	[88]	New

2-(30,50-Dibromo-20-methoxyphenoxy)-3,5-dibromophenol	Halogenated compound	Inhibit Protein tyrosine phosphatase 1B activity - Moderate cytotoxic activity	*Lamellodysidea herbacea*	Manado, Indonesia	[89]	Known
Lamellodysidine A	Sesquiterpene	NA	*Lamellodysidea herbacea*	Manadotua Island, Indonesia	[90]	New
Lamellodysidine B	Sesquiterpene	NA	*Lamellodysidea herbacea*	Manadotua Island, Indonesia	[90]	New
O,Odimethyllingshuiolide A	Sesquiterpene	NA	*Lamellodysidea herbacea*	Manadotua Island, Indonesia	[90]	New
11-epi-O,O-dimethyllingshuiolide A	Sesquiterpene	NA	*Lamellodysidea herbacea*	Manadotua Island, Indonesia	[90]	New
3,5-Dibromobenzene-1,2-diol	Halogenated compound	NA	*Lamellodysidea sp.*	Papua New Guinea	[85]	Known
3,5-Dibromo-2-(3,5-dibromo-2-hydroxyphenoxy)phenol	Halogenated compound	Antimicrobial	*Lamellodysidea sp.*	Papua New Guinea	[85]	Known
3,4,6-Tribromo-2-(3,5-dibromo-2-hydroxyphenoxy)phenol	Halogenated compound	Antimicrobial	*Lamellodysidea sp.*	Papua New Guinea	[85]	Known
2,3,5-Tribromo-6-(3,5-dibromo-2-hydroxyphenoxy)phenol	Halogenated compound	Antimicrobial	*Lamellodysidea sp.*	Papua New Guinea	[85]	Known
2,3,4-Tribromo-6-(3,5-dibromo-2-hydroxyphenoxy)phenol	Halogenated compound	Antimicrobial	*Lamellodysidea sp.*	Papua New Guinea	[85]	Known

3,4,5-Tribromo-2-(3,5-dibromo-2-hydroxyphenoxy)phenol	Halogenated compound	Antimicrobial	*Lamellodysidea sp.*	Papua New Guinea	[85]	Known
		Cytotoxic activity	*Dysidea sp.*	Maumere, Indonesia	[86]	
2,3,4,5-Tetrabromo-6-(3,5-dibromo-2-hydroxyphenoxy)phenol	Halogenated compound	Antimicrobial	*Lamellodysidea sp.*	Papua New Guinea	[85]	Known
1-(3',5',6'-Tribromo-4'-□methoxy-1'-hydroxyphenoxy)-3,5-dibromo-2-phenol	Halogenated compound	Antimicrobial	*Lamellodysidea sp.*	Papua New Guinea	[85]	New
C- Family: Spongiidae						
(+)-Sponalisolide A	Miscellaneous compound	Antibacterial against Pseudomonas aeruginosa	*Spongia officinalis*	The coast of Weizhou island, China	[91]	New
(−)-Sponalisolide A	Miscellaneous compound	Antibacterial against Pseudomonas aeruginosa	*Spongia officinalis*	The coast of Weizhou island, China	[91]	New
(+)-Sponalisolide B	Miscellaneous compound	Antibacterial against Pseudomonas aeruginosa	*Spongia officinalis*	The coast of Weizhou island, China	[91]	New
(−)-Sponalisolide B	Miscellaneous compound	Antibacterial against Pseudomonas aeruginosa	*Spongia officinalis*	The coast of Weizhou island, China	[91]	New
3-Nor-spongiolide A	Diterpene	NA	*Spongia officinalis*	South China Sea	[92]	New
Spongiolide A	Diterpene	NA	*Spongia officinalis*	South China Sea	[92]	New
Spongiolide B	Diterpene	NA	*Spongia officinalis*	South China Sea	[92]	New

Spongia-13(16),14-diene	Diterpene	NA	*Spongia officinalis*	South China Sea	[92]	Known
18-nor-3,17- Dihydroxyspongia-3,13(16),14-trien-2-one	Diterpene	NA	*Spongia officinalis*	South China Sea	[92]	Known
Spongiatriol	Diterpene	NA	*Spongia officinalis*	South China Sea	[92]	Known
		Antiviral activity & Cytotoxic activity	*Hyattella aff. Intestinalis*	Iriomote Island, Okinawa	[93]	
Isospongiatriol	Diterpene	NA	*Spongia officinalis*	South China Sea	[92]	Known
		Antiviral activity & Cytotoxic activity	*Hyattella aff. Intestinalis*	Iriomote Island, Okinawa	[93]	
Epispongiatriol	Diterpene	NA	*Spongia officinalis*	South China Sea	[92]	Known
		Antiviral activity & Cytotoxic activity	*Hyattella aff. Intestinalis*	Iriomote Island, Okinawa	[93]	
17,19-Dihydroxyspongia-13(16),14-dien-2,3-dione	Diterpene	NA	*Spongia officinalis*	South China Sea	[92]	Known
18-nor-3,17-dihydroxyspongia-3,13(16),14-trien-2-one	Diterpene	Inhibition of TNF-α-activated NF-κB activity - Inhibition of aromatase	*Spongia sp*	Sulawesi, Indonesia	[94]	New
18-nor-3,5,17-trihydroxyspongia-3,13(16),14-trien-2-one	Diterpene	Inhibition of TNF-α-activated NF-κB activity	*Spongia sp*	Sulawesi, Indonesia	[94]	New

Spongiapyridine	Diterpene	Inhibition of TNF-α-activated NF-κB activity	*Spongia sp*	Sulawesi, Indonesia	[94]	New
17-Hydroxy-4-epi-spongialactone A	Diterpene	Inhibition of TNF-α-activated NF-κB activity	*Spongia sp*	Sulawesi, Indonesia	[94]	Known
(1*R*,5b*R*,11a*S*,13a*S*,13b*R*)-1-Methoxy-5b,8,8,11a,13a-pentamethyl-1,5,5a,6,7,7a,8,9,10,11,11a,11b,12,13,13a,13b-hexadecahydrochryseno[1,2-c]furan-3(5bH)-one	Sesterterpene	NA	*Spongia sp*	Geoje Island, South Sea of Korea	[95]	New
(1*R*,4b*R*,10a*S*,12*R*,12a*S*)-Methyl 1-formyl-12-hydroxy-4b,7,7,10a,12a-pentamethyl-1,4,4a,4b,5,6,6a,7,8,9,10,10a,10b,11,12,12a-hexadecahydrochrysene-2-carboxylate	Sesterterpene	NA	*Spongia sp*	Geoje Island, South Sea of Korea	[95]	New
Furospongin-1	Sesterterpene	Protein tyrosine phosphatase (PTP) 1B inhibitor	*Spongia sp.*	Manado, Indonesia	[96]	New
Langcoquinone D	Sesquiterpene	Antibacterial & cytotoxic activity	*Spongia sp.*	Thua Thien-Hue city, Vietnam	[97]	New
Langcoquinone E	Sesquiterpene	NA	*Spongia sp.*	Thua Thien-Hue city, Vietnam	[97]	New
Langcoquinone F	Sesquiterpene	NA	*Spongia sp.*	Thua Thien-Hue city, Vietnam	[97]	New
Scalalactam A	Sesterterpene	NA	*Spongia sp.*	The South Sea near Tong-Yong City, Korea	[98]	New
Scalalactam B	Sesterterpene	NA	*Spongia sp.*	The South Sea near Tong-Yong City, Korea	[98]	New

Scalalactam C	Sesterterpene	NA	*Spongia sp.*	The South Sea near Tong-Yong City, Korea	[98]	New
Scalalactam D	Sesterterpene	NA	*Spongia sp.*	The South Sea near Tong-Yong City, Korea	[98]	New
18-Deoxy-18-formamidodictyoceratin B	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	New
18-Deoxy-18-(2-hydroxyacetyl)aminodictyoceratin B	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	New
Dictyoceratin D	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	New
N-Methyl-ent-smenospongine	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	New
N-Methyl-5-epi-smenospongine	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	New
20-Demethoxy-20-methylaminodactyloquinone D	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	New
20-Demethoxy-20-methylamino-5-epi-dactyloquinone D	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	New
20-Demethoxy-20-methylaminodactyloquinone B	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	New
Yahazunol B	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	New
5-*epi*-smenospongine	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	Known
Smenospongiadine	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	Known
Ceylonamide A	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[100]	New
Ceylonamide B	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[100]	New
Ceylonamide C	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[100]	New
Ceylonamide D	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[100]	New
Ceylonamide E	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[100]	New

Ceylonamide F	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[100]	New
15α,16-dimethoxyspongi-13-en-19-oic acid	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[100]	New
Haumanamide	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[100]	Known
Spongia-13(16),14-dien-19-oic acid	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[100]	Known
Spongiadiol	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[100]	Known
Isospongiadiol	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[100]	Known
Ceylonin A	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[101]	New
Ceylonin B	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[101]	New
Ceylonin C	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[101]	New
Ceylonin D	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[101]	New
Ceylonin E	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[101]	New

Ceylonin F	Diterpene	Inhibition of RANKL induced osteoclastogenesis	*Spongia ceylonensis*	Indonesia	[101]	New
Spongia- 13(16),14-dien-19-oic acid	Diterpene	NA	*Spongia ceylonensis*	Indonesia	[101]	Known
Ceylonin G	Diterpene	NA	*Spongia ceylonensis*	Indonesia	[102]	New
Ceylonin H	Diterpene	NA	*Spongia ceylonensis*	Indonesia	[102]	New
Ceylonin I	Diterpene	NA	*Spongia ceylonensis*	Indonesia	[102]	New
ent-13-norisocopalen-15-al-18-oic acid	Diterpene	Ubiquitin-specific protease 7 (USP7) inhibitor (anticancer)	*Spongia ceylonensis*	Indonesia	[102]	Known
15-oxospongi-13-en-19-oic acid	Diterpene	NA	*Spongia ceylonensis*	Indonesia	[102]	Known
		NA	*Spongia ceylonensis*	Indonesia	[100]	
16-Oxospongi-13-en-19-oic acid	Diterpene	NA	*Spongia ceylonensis*	Indonesia	[102]	Known
			Spongia ceylonensis	Indonesia	[100]	
Spongiabutenolide A	Diterpene	NA	*Spongia ceylonensis*	Indonesia	[102]	Known
			Spongia ceylonensis	Indonesia	[100]	
Spongiabutenolide B	Diterpene	NA	*Spongia ceylonensis*	Indonesia	[102]	Known
			Spongia ceylonensis	Indonesia	[100]	
Epi-ilimaquinone	Sesquiterpene	Cytotoxic activity - Antimicrobial activity	*Hippospongia sp*	Fiji island, Melanesia	[103]	Known
Smenospongine	Sesquiterpene	Cytotoxic activity	*Hippospongia sp*	Fiji island, Melanesia	[103]	Known
			Spongia pertusa Esper	Yongxing Island	[99]	

Glycinylilimaquinone	Sesquiterpene	Cytotoxic activity	*Hippospongia sp*	Fiji island, Melanesia	[103]	Known
Hippospongide C	Sesterterpene	Cytotoxic activity	*Hippospongia sp.*	The coast of Tai-tung, Taiwan	[104]	New
12-Deacetyl-12-epi-scalaradial	Sesterterpene	Cytotoxic activity	*Hippospongia sp.*	The coast of Tai-tung, Taiwan	[104]	Known
12-*epi*-scalaradial	Sesterterpene	Cytotoxic activity	*Hippospongia sp.*	The coast of Tai-tung, Taiwan	[104]	Known
12-Deacetyl-12,18-diepi-scalaradial	Sesterterpene	Cytotoxic activity	*Hippospongia sp.*	The coast of Tai-tung, Taiwan	[104]	Known
12,18-Diepiscalaradial	Sesterterpene	Cytotoxic activity	*Hippospongia sp.*	The coast of Tai-tung, Taiwan	[104]	Known
Rhopaloic acid H	Sesterterpene	Cytotoxic activity	*Hippospongia sp.*	The coast of Pingtung county	[105]	New
Rhopaloic acid A	Sesterterpene	Cytotoxic activity	*Hippospongia sp.*	The coast of Pingtung county	[105]	Known
Rhopaloic acid C	Sesterterpene	Cytotoxic activity	*Hippospongia sp.*	The coast of Pingtung county	[105]	Known
Heteronemin	Sesterterpene	Cytotoxic activity	*Hippospongia sp.*	Tai-tung coast, Taiwan	[106]	Known
Hippolachnin A	Polyketide	Antifungal activity	*Hippospongia lachne*	The south China sea, Xisha Islands	[107]	New
(1*S*,5*R*)-8-((3*E*,7*E*)-4,8,12-Trimethyltrideca-3,7,11-trien-1-yl)-9-oxa-2-azabicyclo[3.3.1]nona-3,7-diene-4-carbaldehyde	Sesterterpene	Protein tyrosine phosphatase 1B (PTP1B) inhibitory activity	*Hippospongia lachne*	The south China sea	[108]	New

(3a*S*,4*R*,7a*S*)-4-Hydroxy-2-oxo-7-((3*E*,7*E*)-4,8,12-trimethyltrideca-3,7,11-trien-1-yl)-2,3,3a,4,5,7a-hexahydrobenzofuran-3a-carboxylic acid	Sesterterpene	Protein tyrosine phosphatase 1B (PTP1B) inhibitory activity	*Hippospongia lachne*	The south China sea	[108]	New
(3a*R*,4*R*,7a*S*)-4-Hydroxy-2-oxo-7-((3*E*,7*E*)-4,8,12-trimethyltrideca-3,7,11-trien-1-yl)-2,3,3a,4,5,7a-hexahydro-1H-indole-3a-carboxylic acid	Sesterterpene	Protein tyrosine phosphatase 1B (PTP1B) inhibitory activity	*Hippospongia lachne*	The south China sea	[108]	New
2-(2-Hydroxy-5-((3*E*,7*E*)-4,8,12-trimethyltrideca-3,7,11-trien-1-yl)phenyl)acetic acid	Sesterterpene	Protein tyrosine phosphatase 1B (PTP1B) inhibitory activity	*Hippospongia lachne*	The south China sea	[108]	New
(2*E*,4*E*,6*Z*)-6-(Aminomethylene)-2-((3*E*,7*E*)-4,8,12-trimethyltrideca-3,7,11-trien-1-yl)hepta-2,4-dienedial	Sesterterpene	Protein tyrosine phosphatase 1B (PTP1B) inhibitory activity	*Hippospongia lachne*	The south China sea	[108]	New
(-)-Hippolide J	Sesterterpene	Antifungal activity	*Hippospongia lachne*	The south China sea, Yongxing Island	[109]	New
(+)-Hippolide J	Sesterterpene	Antifungal activity	*Hippospongia lachne*	The south China sea, Yongxing Island	[109]	New
Hipposponlachnin A	Diterpene	Antiallergic activity	*Hippospongia lachne*	The south China sea, Xisha Islands	[110]	New
Hipposponlachnin B	Diterpene	Antiallergic activity	*Hippospongia lachne*	The south China sea, Xisha Islands	[110]	New
Hyattellactone A	Sesterterpene	Protein tyrosine phosphatase 1B inhibitor	*Hyattella sp.*	North Sulawesi, Indonesia	[111]	New
Hyattellactone B	Sesterterpene	Protein tyrosine phosphatase 1B inhibitor	*Hyattella sp.*	North Sulawesi, Indonesia	[111]	New
Phyllofolactone F	Sesterterpene	Protein tyrosine phosphatase 1B inhibitor	*Hyattella sp.*	North Sulawesi, Indonesia	[111]	Known

Phyllofolactone G	Sesterterpene	Protein tyrosine phosphatase 1B inhibitor	*Hyattella sp.*	North Sulawesi, Indonesia	111	Known
2α-Hydroxyspongia- 13(16),14-diene-3-one	Diterpene	Cytotoxic activity	*Hyattella aff. intestinalis*	Iriomote Island, Okinawa	93	New
(3b*R*,5a*R*,6*S*,9a*R*,9b*R*)-6-(Hydroxymethyl)-3b,6,9a-trimethyl-4,5,5a,6,8,9,9a,9b,10,11-decahydrophenanthro[1,2-c]furan-7(3bH)-one	Diterpene	Cytotoxic activity	*Hyattella aff. intestinalis*	Iriomote Island, Okinawa	93	Known
(3b*R*,5a*R*,7*S*,9a*R*,9b*R*)-7-Hydroxy-3b,6,6,9a-tetramethyl-3b,4,5,5a,6,7,9,9a,10,11-decahydrophenanthro[1,2-c]furan-8(9bH)-one	Diterpene	Cytotoxic activity	*Hyattella aff. intestinalis*	Iriomote Island, Okinawa	93	Known
3*β*-Hydroxyspongia-13(16),14-diene-2-one	Diterpene	Cytotoxic activity	*Hyattella aff. intestinalis*	Iriomote Island, Okinawa	93	New
2*α*,3*α*- Diacetoxy-17,19-dihydroxyspongia-13(16),14-diene	Diterpene	Cytotoxic activity	*Hyattella aff. intestinalis*	Iriomote Island, Okinawa	93	New
(3b*S*,5a*R*,6*S*,7*R*,8*S*,9a*R*,9b*R*)-3b,6-Bis(hydroxymethyl)-6,9a-dimethyl-3b,4,5,5a,6,7,8,9,9a,9b,10,11-dodecahydrophenanthro[1,2-c]furan-7,8-diol	Diterpene	Cytotoxic activity	*Hyattella aff. intestinalis*	Iriomote Island, Okinawa	93	Known
Suvanine N,N-dimethylguanidium salt	Sesterterpene	Cytotoxic activity	*Coscinoderma sp.*	Chuuk Island, Micronesia	112	Known
N,N-Dimethyl-1,3- dimethylherbipoline salt	Sesterterpene	Cytotoxic activity - antibacterial activity	*Coscinoderma sp.*	Chuuk Island, Micronesia`	112	New
Coscinolactam A	Sesterterpene	Cytotoxic activity	*Coscinoderma sp.*	Chuuk Island, Micronesia	112	Known

Coscinolactam C	Sesterterpene	Cytotoxic activity	*Coscinoderma sp.*	Chuuk Island, Micronesia	[112]	New
Coscinolactam D	Sesterterpene	Cytotoxic activity	*Coscinoderma sp.*	Chuuk Island, Micronesia	[112]	New
Coscinolactam E	Sesterterpene	Cytotoxic activity	*Coscinoderma sp.*	Chuuk Island, Micronesia	[112]	New
Coscinolactam F	Sesterterpene	Cytotoxic activity	*Coscinoderma sp.*	Chuuk Island, Micronesia	[112]	New
Coscinolactam G	Sesterterpene	Cytotoxic activity	*Coscinoderma sp.*	Chuuk Island, Micronesia	[112]	New
Deacyl irciniasulfonic acid C	Miscellaneous compound	NA	*Coscinoderma sp.*	Chuuk Island, Micronesia	[112]	New
Sodium deacyl irciniasulfonate D	Miscellaneous compound	NA	*Coscinoderma sp.*	Chuuk Island, Micronesia	[112]	New
D- Family: Irciniidae						
4-(2-((*S*)-2,2-Dimethyl-6-methylenecyclohexyl)ethyl)-5-hydroxyfuran-2(5H)-one	Sesquiterpene	PPARδ activity	*Ircinia sp.*	Korea	[113]	Known
(*S*)-4-(2-(2,2-Dimethyl-6-methylenecyclohexyl)ethyl)-1-isopentyl-1H-pyrrol-2(5H)-one	Meroterpene	PPARδ activity	*Ircinia sp.*	Korea	[113]	New
4-(2-((*S*)-2,2-Dimethyl-6-methylenecyclohexyl)ethyl)-1-(2-methylbutyl)-1H-pyrrol-2(5H)-one	Meroterpene	PPARδ activity	*Ircinia sp.*	Korea	[113]	New
(*S*)-4-(2-(2,2-Dimethyl-6-methylenecyclohexyl)ethyl)-1-phenethyl-1H-pyrrol-2(5H)-one	Meroterpene	PPARδ activity	*Ircinia sp.*	Korea	[113]	New

(*S*)-3-(2-(2,2-Dimethyl-6-methylenecyclohexyl)ethyl)-1-phenethyl-1H-pyrrol-2(5H)-one	Meroterpene	PPARδ activity (not active)	*Ircinia sp.*	Korea	[113]	New
3-(2-((*S*)-2,2-Dimethyl-6-methylenecyclohexyl)ethyl)-5-hydroxyfuran-2(5H)-one	Sesquiterpene	PPARδ activity (not active)	*Ircinia sp.*	Korea	[113]	Known
(4a*R*,6*S*,8a*S*)-4a,6-Dihydroxy-2-((1*R*,2*R*,3*R*)-2-(2-hydroxyethyl)-2-methyl-3-((*R*)-6-methylheptan-2-yl)cyclopentyl)-8a-methyl-4a,5,6,7,8,8a-hexahydronaphthalene-1,4-dione	Secosterol	Antibacterial	*Ircinia sp.*	Yeongdeok-gun in the East Sea	[114]	New
5-Hydroxy-1Hindole-3-carboxylic acid ethyl ester	Nitrogenous compound (Indole derivative)	NA	*Ircinia sp.*	Iriomote Island	[115]	New
5-Hydroxy-1Hindole-3-glyoxylate ethyl ester	Nitrogenous compound (Indole derivative)	NA	*Ircinia sp.*	Iriomote Island	[115]	New
Dragmacidonamine B	Nitrogenous compound (Indole derivative)	NA	*Ircinia sp.*	Iriomote Island	[115]	Known
Gesashidine A	Nitrogenous compound (Indole derivative)	NA	*Ircinia sp.*	Iriomote Island	[115]	Known
Hyrtiosulawesine	Nitrogenous compound (Indole derivative)	NA	*Ircinia sp.*	Iriomote Island	[115]	Known
Hyrtiomanzamine	Nitrogenous compound (Indole derivative)	NA	*Ircinia sp.*	Iriomote Island	[115]	Known
Hyrtimomine D	Nitrogenous compound (Indole derivative)	NA	*Ircinia sp.*	Iriomote Island	[115]	Known
Hyrtiosine A	Nitrogenous compound (Indole derivative)	NA	*Ircinia sp.*	Iriomote Island	[115]	Known
5-Hydroxy-1H-indole-3-carbaldehyde	Nitrogenous compound (Indole derivative)	NA	*Ircinia sp.*	Iriomote Island	[115]	Known
(4a*R*,6*S*,8a*S*)-2-((1*R*,2*R*,3*R*)-3-((2*R*,*Z*)-5,6-Dimethylhept-3-en-2-yl)-2-(2-hydroxyethyl)-2-methylcyclopentyl)-4a,6-dihydroxy-8a-methyl-4a,5,6,7,8,8a-hexahydronaphthalene-1,4-dione	Secosterol	Antibacterial	*Ircinia sp.*	Yeongdeok-gun in the East Sea	[116]	New

(7*E*, 12*E*, 20*Z*, 18*S*)-Variabilin	Sesterterpene	Protein tyrosine phosphatase (PTP) 1B inhibitor	*Ircinia sp.*	Manado, Indonesia	[96]	Known
(12*E*, 20*Z*, 18*S*)-8-Hydroxyvariabilin	Sesterterpene	Protein tyrosine phosphatase (PTP) 1B inhibitor	*Ircinia sp.*	Manado, Indonesia	[96]	Known
Felixin A	Sesterterpene	Cytotoxic activity	*Ircinia felix*	The coast of the Southern Taiwan	[117]	New
Felixin B	Sesterterpene	Cytotoxic activity	*Ircinia felix*	The coast of the Southern Taiwan	[117]	New
Felixin C	Sesterterpene	Cytotoxic activity	*Ircinia felix*	The coast of the Southern Taiwan	[117]	New
Felixin D	Sesterterpene	Cytotoxic activity	*Ircinia felix*	The coast of the Southern Taiwan	[117]	New
Felixin E	Sesterterpene	Cytotoxic activity	*Ircinia felix*	The coast of the Southern Taiwan	[117]	New
Felixin F	Sesterterpene	Cytotoxic activity	*Ircinia felix*	The coast of the Southern Taiwan	[118]	New
Felixin G	Sesterterpene	Cytotoxic activity	*Ircinia felix*	The coast of the Southern Taiwan	[118]	New
Ircinialactam E	Sesterterpene	Antiprotozoal activity	*Ircinia oros*	Northern Aegean Sea, Turkey	[119]	New

Ircinialactam F	Sesterterpene	Antiprotozoal activity	*Ircinia oros*	Northern Aegean Sea, Turkey	[119]	New
(7*E*,12*E*,20*Z*,18*β*)-Variabilin	Sesterterpene	NA	*Ircinia echinata*	Coto Island, Quangninh, Vietnam	[120]	Known
(12*E*,20*Z*,18*β*)-8-Hydroxyvariabilin	Sesterterpene	NA	*Ircinia echinata*	Coto Island, Quangninh, Vietnam	[120]	Known
(7*E*,11*E*,3*β*)-3,7,11-Trimethyl-14-(furan-3-yl)tetradec-7,11-dienoic acid	Sesterterpene	NA	*Ircinia echinata*	Coto Island, Quangninh, Vietnam	[120]	Known
Furoscalarol	Sesterterpene	NA	*Ircinia echinata*	Coto Island, Quangninh, Vietnam	[120]	Known
3*β*-Hydroxycholest-5-en-7-one	Sterol	NA	*Ircinia echinata*	Coto Island, Quangninh, Vietnam	[120]	Known
5 ,6 -Epoxycholesta-7,22(*E*)-dien-3 ,9 -diol	Epoxysterol	NA	*Ircinia echinata*	Bai Tu Long (Quang Ninh, Vietnam)	[121]	New

5 ,6 -Epoxycholesta-7,24(28)-dien-3 ,9 -diol	Epoxysterol	NA	*Ircinia echinata*	Bai Tu Long (Quang Ninh, Vietnam)	[121]	New
(24*R*)-5 ,6 -Epoxy-24-ethyl-cholesta-7-en-3 ,9 -diol	Epoxysterol	Cytotoxic activity	*Ircinia echinata*	Bai Tu Long (Quang Ninh, Vietnam)	[121]	New
5 ,6 -Epoxycholesta-7-en-3 ,9 -diol	Epoxysterol	Cytotoxic activity	*Ircinia echinata*	Bai Tu Long (Quang Ninh, Vietnam)	[121]	New
(24*S*)-5 ,6 -Epoxyergosta-7,22-dien-3 ,9 -diol	Epoxysterol	NA	*Ircinia echinata*	Bai Tu Long (Quang Ninh, Vietnam)	[121]	New
(24*R*)-5 ,6 -Epoxy-24-methyl-cholesta-7-en- 3 ,9 -diol	Epoxysterol	NA	*Ircinia echinata*	Bai Tu Long (Quang Ninh, Vietnam)	[121]	New
5 ,6 -Epoxystigmasta-7-en-3 -ol	Epoxysterol	NA	*Ircinia echinata*	Bai Tu Long (Quang Ninh, Vietnam)	[121]	Known
5 ,6 -Epoxystigmasta-7,22-dien-3 -ol	Epoxysterol	NA	*Ircinia echinata*	Bai Tu Long (Quang Ninh, Vietnam)	[121]	Known
5 ,6 -Epoxyergosta-7-en-3 -ol	Epoxysterol	NA	*Ircinia echinata*	Bai Tu Long (Quang Ninh, Vietnam)	[121]	Known
Sarcotragin C	Sesterterpene	Cytotoxic activity	*Sarcotragus sp.*	Chuja Island, Korea	[122]	New

Ircinin 1	Sesterterpene	Anticancer Activity	*Sarcotragus spinosulus*	Tabarka, Tunisia -	[123]	Known
		Anticancer Activity	*Psammocinia sp.*	North Sulawesi, Indonesia	[124]	
		Antiprotozoal activity	*Ircinia oros*	Northern Aegean Sea, Turkey	[119]	
Sarcotin A	Sesterterpene	Anticancer Activity.	*Sarcotragus fasciculatus*	Monastir, Tunisia	[123]	Known
Variabilin	Sesterterpene	Anticancer Activity.	*Sarcotragus fasciculatus*	Monastir, Tunisia	[123]	Known
2-((*2E,6E,10E,14E,18E,22E*)-3,7,11,15,19,23,27-Heptamethyloctacosa-2,6,10,14,18,22,26-heptaen-1-yl)benzene-1,4-diol	Polyketide	Anticancer Activity.	*Sarcotragus spinosulus*	Monastir, Tunisia	[123]	Known
2-((*2E,6E,10E,14E,18E,22E,26E*)-3,7,11,15,19,23,27,31-Octamethyldotriaconta-2,6,10,14,18,22,26,30-octaen-1-yl)benzene-1,4-diol	Polyketide	Anticancer Activity.	*Sarcotragus spinosulus*	Tabarka, Tunisia	[123]	Known
2′-[38-Hydroxy]nonaprenyl-1′,4′-hydroquinone	Polyketide	Anticancer Activity.	*Sarcotragus foetidus*	Bizerte, Tunisia	[123]	Known
12-Deacetoxy-23-hydroxyscalaradial	Sesterterpene	Cytotoxic activity	*Psammocinia sp.*	The South Sea of Korea	[125]	New
12-Dehydroxy- 23-hydroxyhyrtiolide	Sesterterpene	Cytotoxic activity	*Psammocinia sp.*	The South Sea of Korea	[125]	New
12-*O*-Acetyl-16-deacetoxy-23-acetoxyscalarafuran	Sesterterpene	Cytotoxic activity	*Psammocinia sp.*	The South Sea of Korea	[125]	New
12-Deacetoxy-23-hydroxyheteronemin	Sesterterpene	Cytotoxic activity	*Psammocinia sp.*	The South Sea of Korea	[125]	Known
12-Deacetoxy-23-acetoxy-19-O-acetylscalarin	Sesterterpene	Cytotoxic activity	*Psammocinia sp.*	The South Sea of Korea	[125]	Known
12-Deacetoxy-23-O-acetoxyheteronemin	Sesterterpene	Cytotoxic activity	*Psammocinia sp.*	The South Sea of Korea	[125]	Known
12-Deacetoxyscalaradial	Sesterterpene	Cytotoxic activity	*Psammocinia sp.*	The South Sea of Korea	[125]	Known

(−)-Ircinianin	Sesterterpene	Modulation of glycine-gated chloride channel receptors (GlyRs) (modest potentiator)	*Psammocinia sp.*	Southern Australia	[126]	Known
(−)-Ircinianin sulfate	Sesterterpene	Modulation of glycine-gated chloride channel receptors (GlyRs) (modest antagonist)	*Psammocinia sp.*	Southern Australia	[126]	Known
(−)-Ircinianin lactam A	Sesterterpene	Modulation of glycine-gated chloride channel receptors (GlyRs) (no significant effect)	*Psammocinia sp.*	Southern Australia	[126]	New
(−)-Ircinianin lactam A sulfate	Sesterterpene	Modulation of glycine-gated chloride channel receptors (GlyRs) (modest potentiator)	*Psammocinia sp.*	Southern Australia	[126]	New
(−)-Oxoircinianin	Sesterterpene	Modulation of glycine-gated chloride channel receptors (GlyRs) (no significant effect)	*Psammocinia sp.*	Southern Australia	[126]	New

(−)-Oxoircinianin lactam A	Sesterterpene	Modulation of glycine-gated chloride channel receptors (GlyRs) (selective potentiator of α1 GlyRs)	*Psammocinia sp.*	Southern Australia	[126]	New
(−)-Icinianin lactone A	Sesterterpene	Modulation of glycine-gated chloride channel receptors (GlyRs) (no significant effect)	*Psammocinia sp.*	Southern Australia	[126]	New
Sulawesin A	Sesterterpene	Anticancer Activity.	*Psammocinia sp.*	North Sulawesi, Indonesia	[124]	New
Sulawesin B	Sesterterpene	Anticancer Activity.	*Psammocinia sp.*	North Sulawesi, Indonesia	[124]	New
Sulawesin C	Sesterterpene	Anticancer Activity.	*Psammocinia sp.*	North Sulawesi, Indonesia	[124]	New
Ircinin 2	Sesterterpene	Anticancer Activity	*Psammocinia sp.*	North Sulawesi, Indonesia	[124]	Known
		Antiprotozoal activity	*Ircinia oros*	Northern Aegean Sea, Turkey	[119]	

E- Artifacts from order Dictyoceratida:						
*α*16- Methoxyfuroscalarol	Sesterterpene	Cytotoxic activity	*Scalarispongia sp.*	Dokdo (island), Republic of Korea	[37]	Artifact
*β*16- Methoxyfuroscalarol	Sesterterpene	Cytotoxic activity	*Scalarispongia sp.*	Dokdo (island), Republic of Korea	[37]	Artifact
20-Demethoxy-20-ethoxydactyloquinone E	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	Artifact
20-Demethoxy-20-ethoxydactyloquinone B	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	Artifact
20-Demethoxy-20-ethoxycyclospongiaquinone-1	Sesquiterpene	Cytotoxic activity	*Spongia pertusa Esper*	Yongxing Island	[99]	Artifact
3,5-Dibromo-2-(30,50-dibromo-20-methoxyphenoxy)-1-methoxybenzene	Halogenated compound	Inhibit Protein tyrosine phosphatase 1B activity	*Lamellodysidea herbacea*	Manado, Indonesia	[89]	Prepared
3,5-Dibromo-2-(30,50-dibromo-20-methoxyphenoxy)phenyl ethanoate	Halogenated compound	Inhibit Protein tyrosine phosphatase 1B activity - cytotoxic	*Lamellodysidea herbacea*	Manado, Indonesia	[89]	Prepared
3,5-Dibromo-2-(30,50-dibromo-20-methoxyphenoxy)phenyl butanoate	Halogenated compound	Inhibit Protein tyrosine phosphatase 1B activity - cytotoxic	*Lamellodysidea herbacea*	Manado, Indonesia	[89]	Prepared
3,5-Dibromo-2-(30,50-dibromo-20-methoxyphenoxy)phenyl hexanoate	Halogenated compound	Inhibit Protein tyrosine phosphatase 1B activity - cytotoxic	*Lamellodysidea herbacea*	Manado, Indonesia	[89]	Prepared
3,5-Dibromo-2-(30,50-dibromo-20-methoxyphenoxy)phenyl benzoate	Halogenated compound	Inhibit Protein tyrosine phosphatase 1B activity - cytotoxic	*Lamellodysidea herbacea*	Manado, Indonesia	[89]	Prepared

(−)-Ircinianin acetate	Sesterterpene	Modulation of glycine-gated chloride channel receptors (GlyRs) (no significant effect)	*Psammocinia sp.*	Southern Australia	[126]	Acetylation of (−)-ircinianin
(2*R*,3*R*,4*S*,5*R*)-3-(2-((*S*)-2,2-Dimethyl-6-methylenecyclohexyl)ethyl)-2,5-dimethoxytetrahydrofuran-3,4-diol	Terpene	PPARδ agonistic activity	*Ircinia sp.*	Korea	[113]	artifact
(2*R*,4*S*,5*R*)-3-(2-((*S*)-2,2-Dimethyl-6-methylenecyclohexyl)ethyl)-2,5-dimethoxytetrahydrofuran-3,4-diol	Terpene	PPARδ agonistic activity	*Ircinia sp.*	Korea	[113]	artifact
Salarin A	Macrolide	Cytotoxic activity	*Fascaplysinopsis sp.*	Madagascar	[127]	New
Salarin C	Macrolide	Cytotoxic activity	*Fascaplysinopsis sp.*	Madagascar	[127]	New
Tulearin A	Macrolide	Cytotoxic activity	*Fascaplysinopsis sp.*	Madagascar	[127]	New

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