

Supplementary Figures and Tables

Aspergillus fumigatus from Pathogenic Fungus to Unexplored Natural Treasure: Changing the Concept

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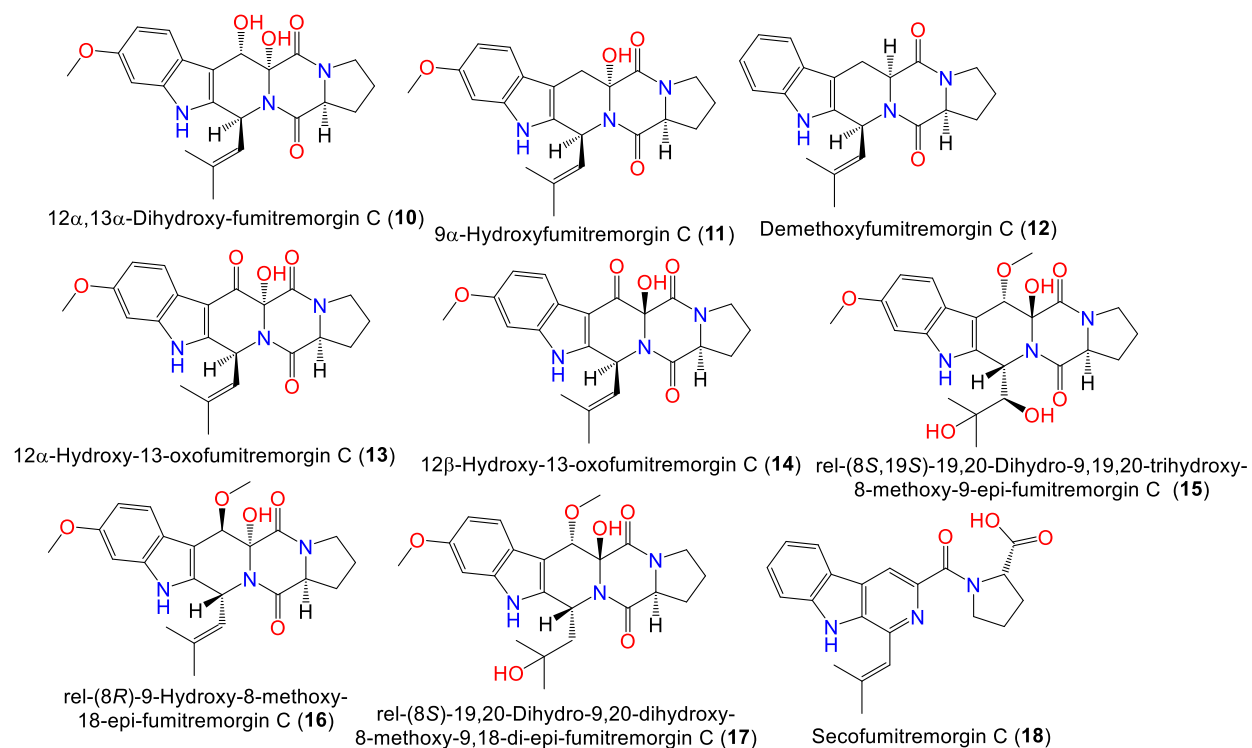


Fig. S1. Chemical structures of indole-diketopiperazine alkaloids (10–18).

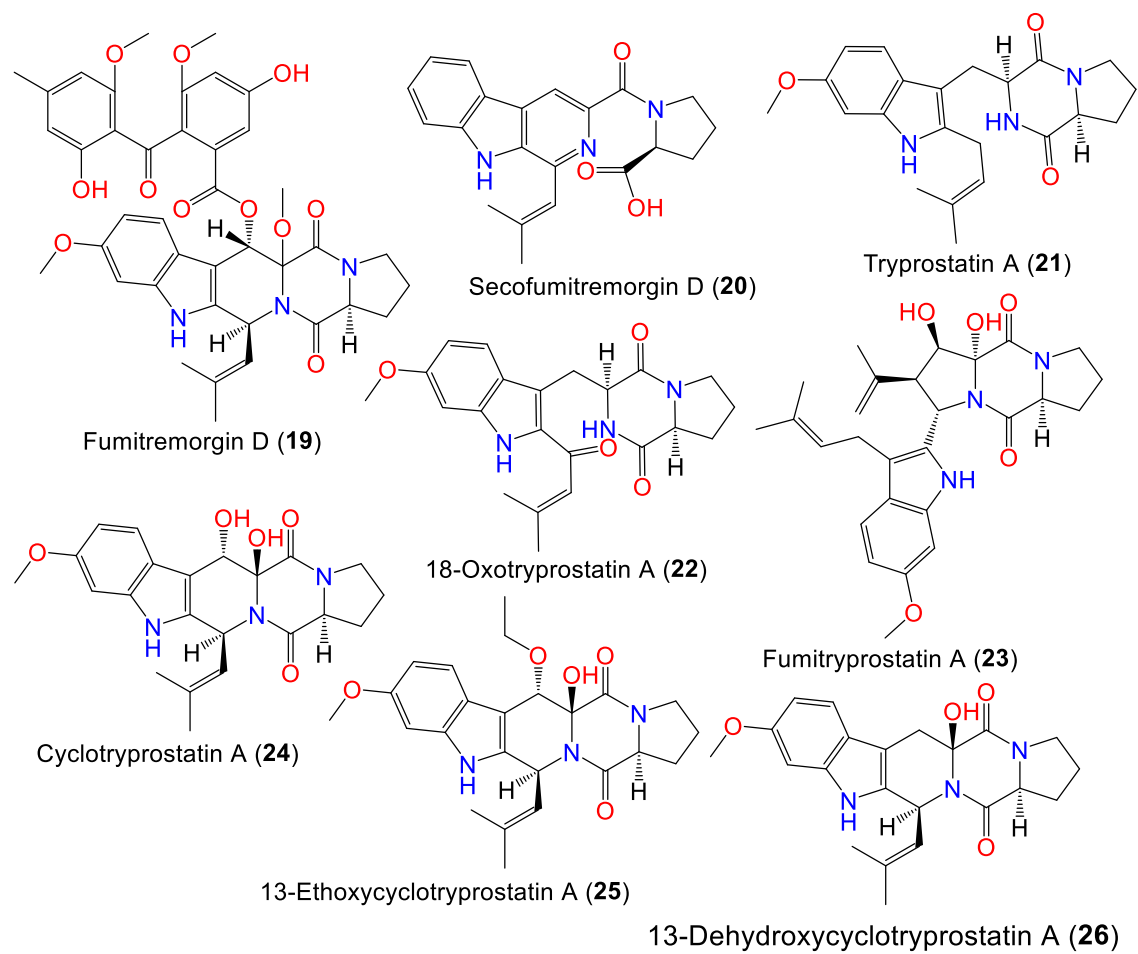


Fig. S2. Chemical structures of indole-diketopiperazine alkaloids (19–26).

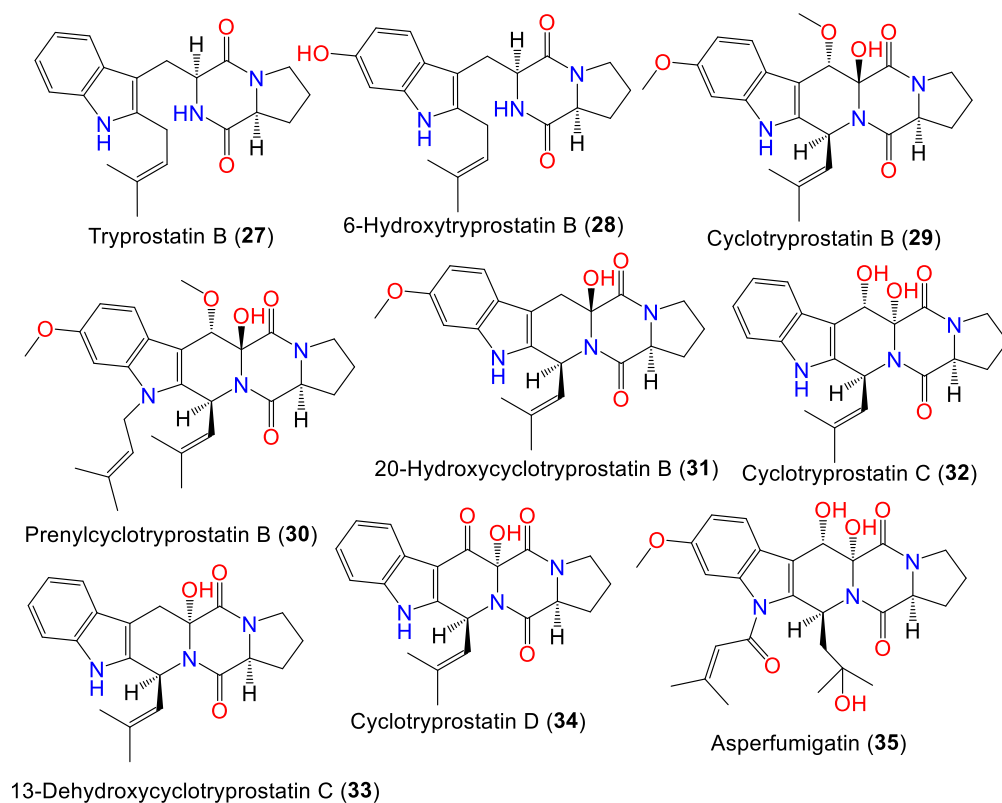


Fig. S3. Chemical structures of indole-diketopiperazine alkaloids (27–35).

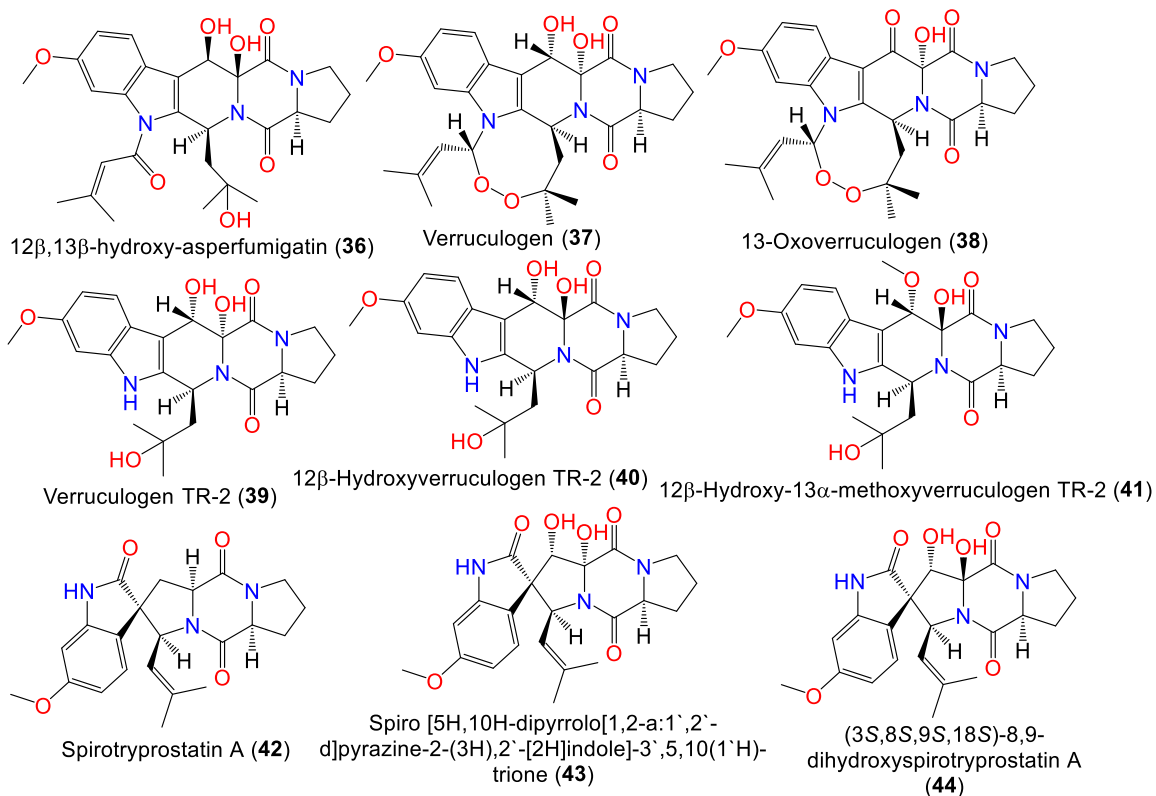


Figure S4. Chemical structures of indole-diketopiperazine alkaloids (36–44).

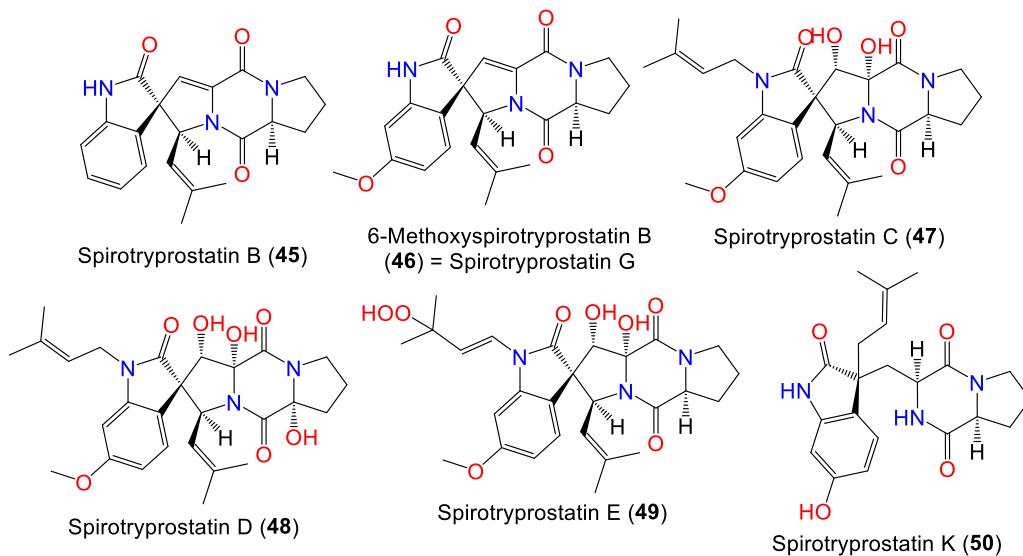


Fig. S5. Chemical structures of indole-diketopiperazine alkaloids (45–50).

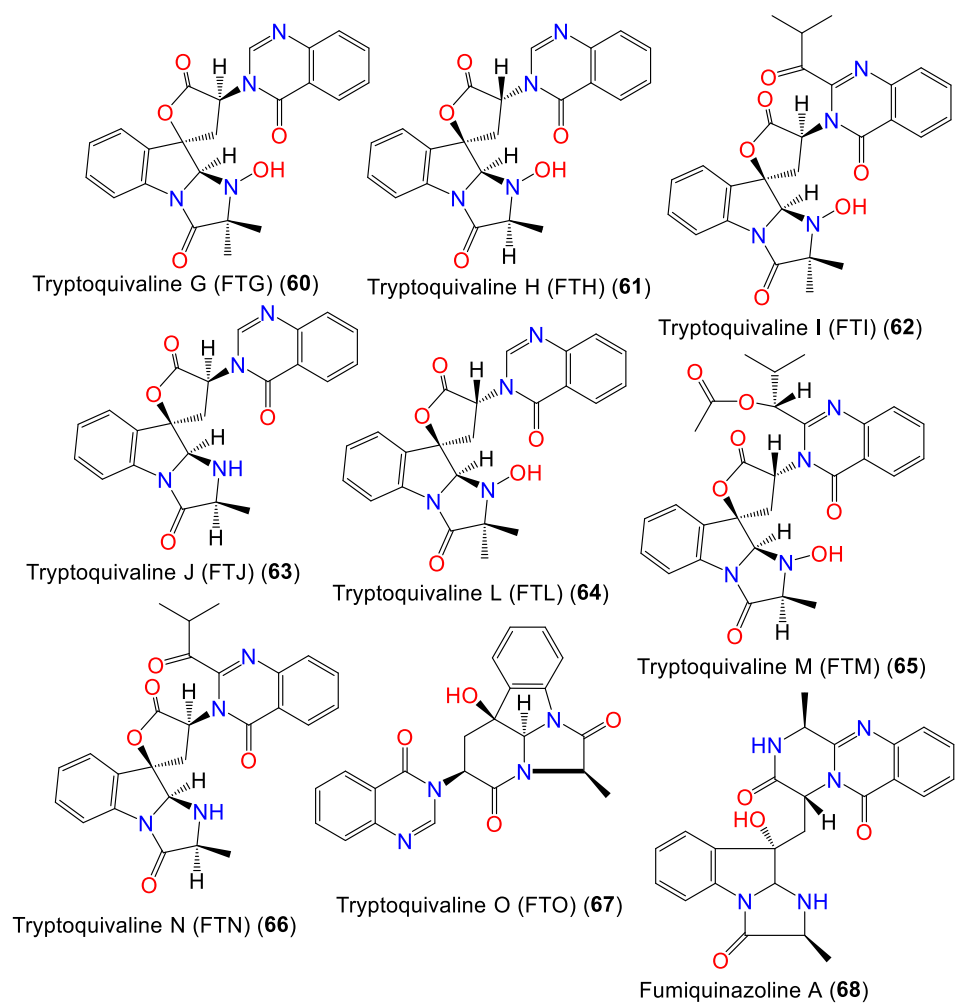


Fig. S6. Chemical structures of indole-quinazoline alkaloids (60–68).

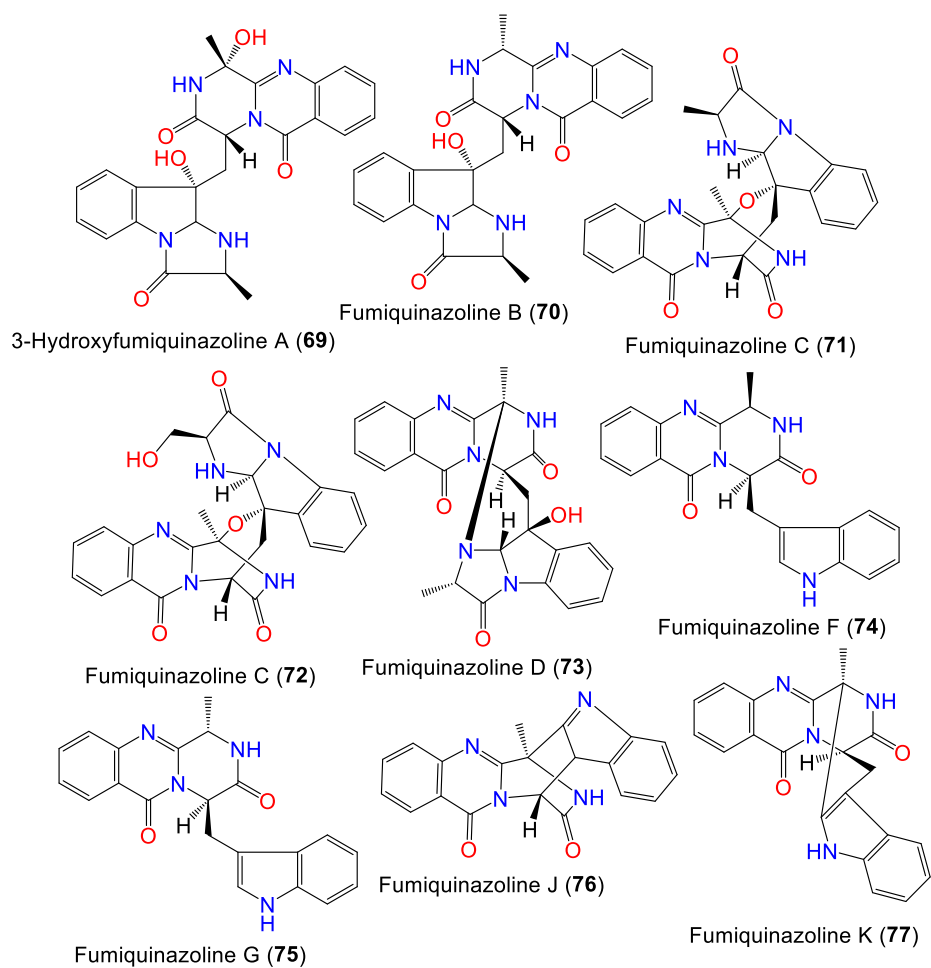


Fig. S7. Chemical structures of indole-quinazoline alkaloids (69–77).

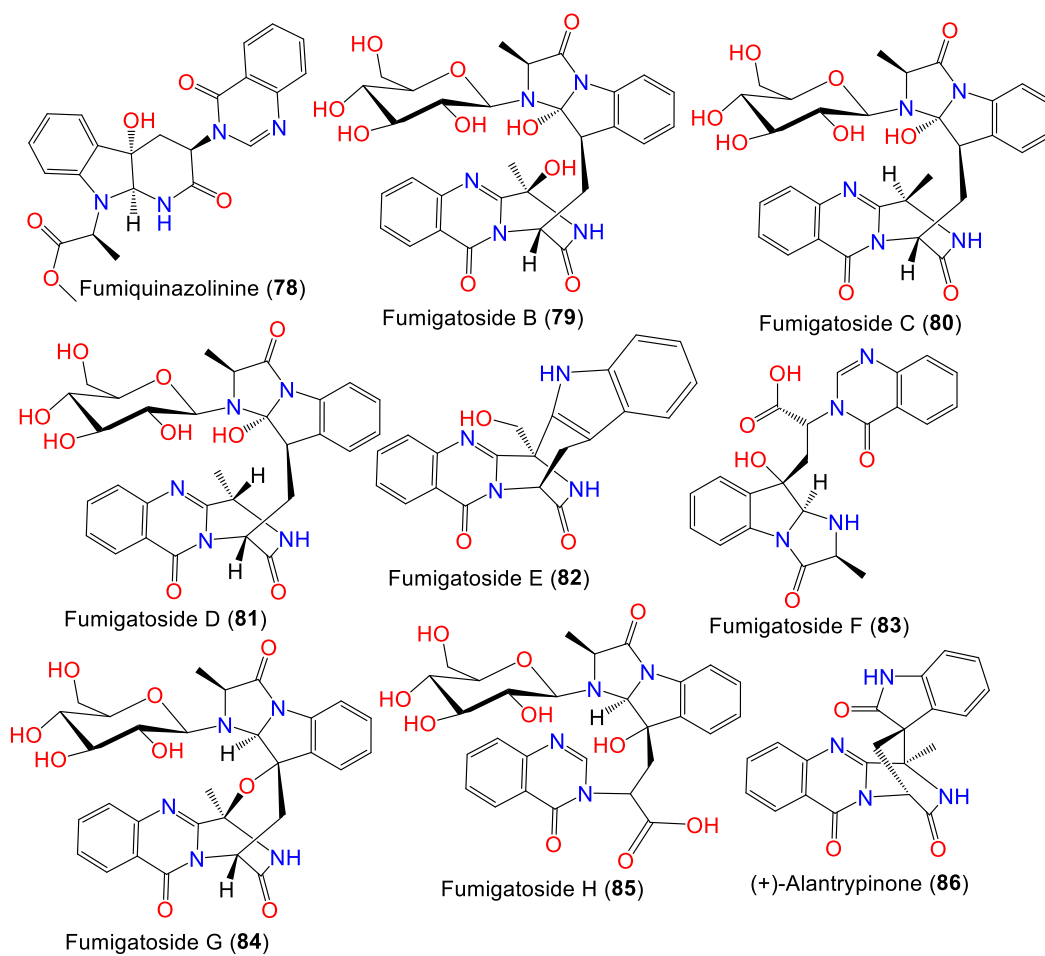


Fig. S8. Chemical structures of indole-quinazoline alkaloids (78–86).

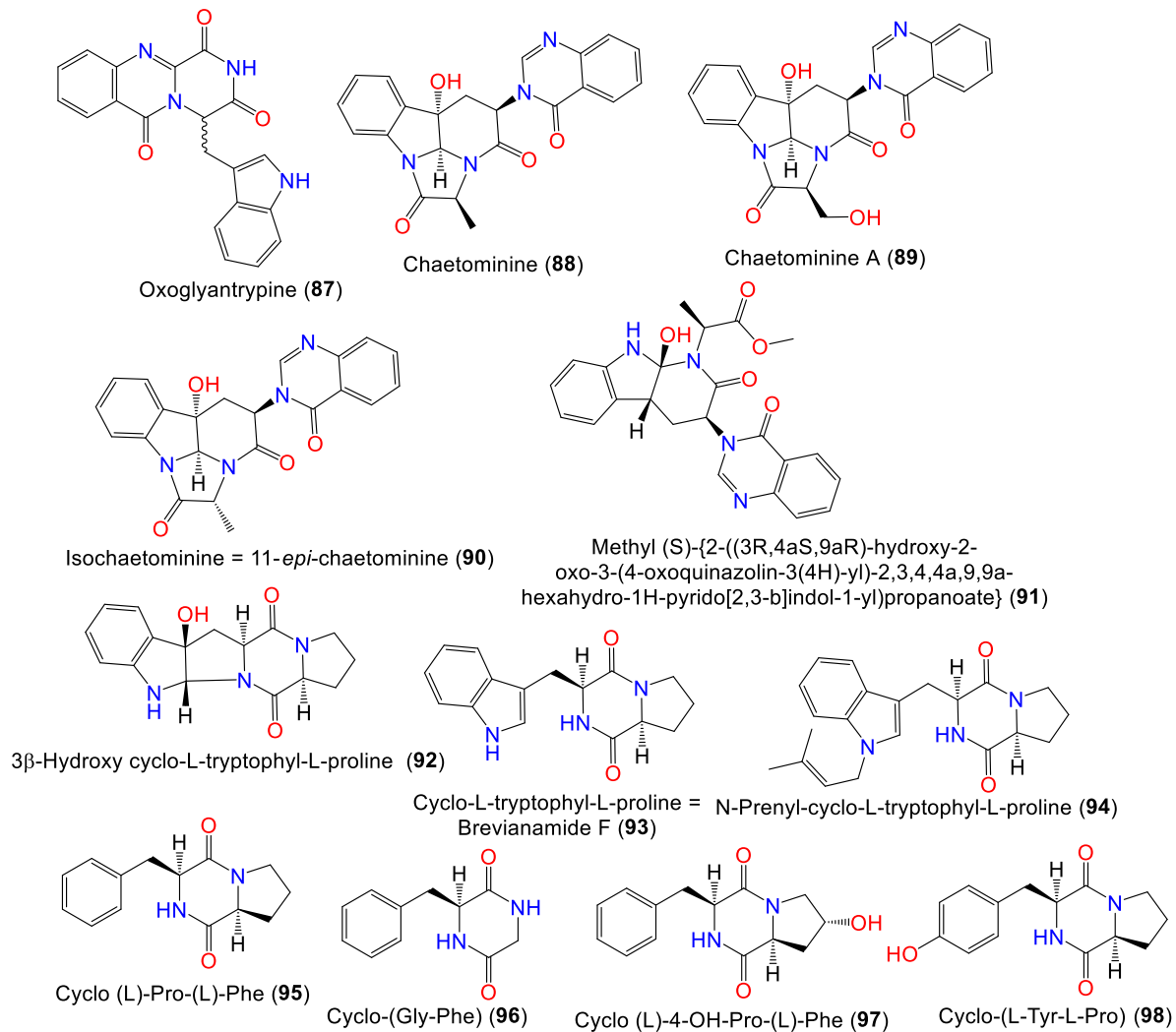


Fig. S9. Chemical structures of indole-quinazoline (87–91) and diketopiperazine (92–98) alkaloids.

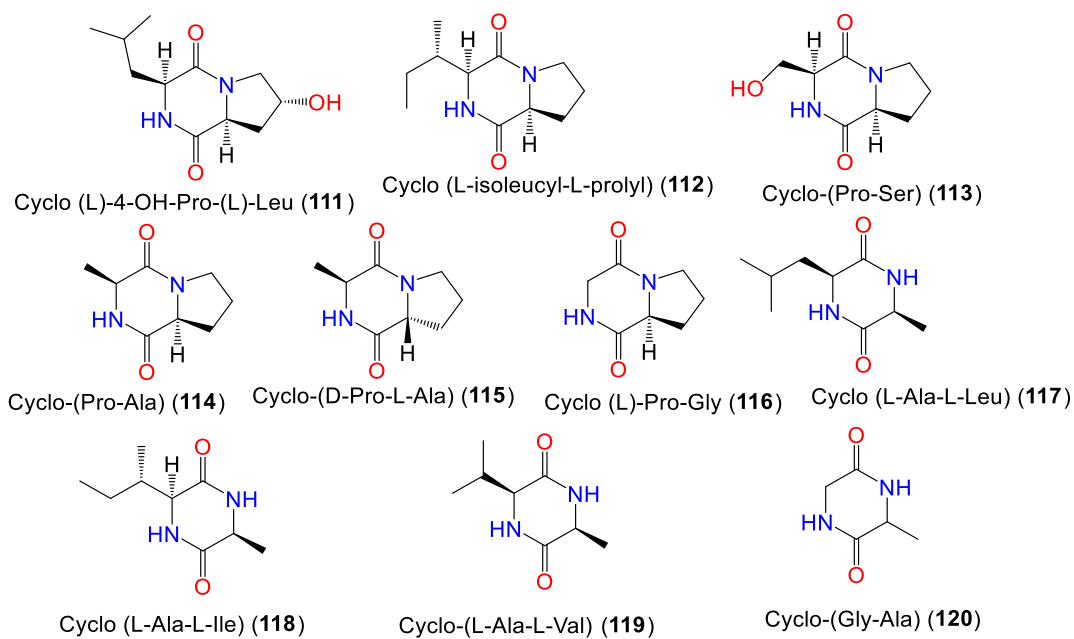


Fig. S10. Chemical structures of diketopiperazine alkaloids (111–120).

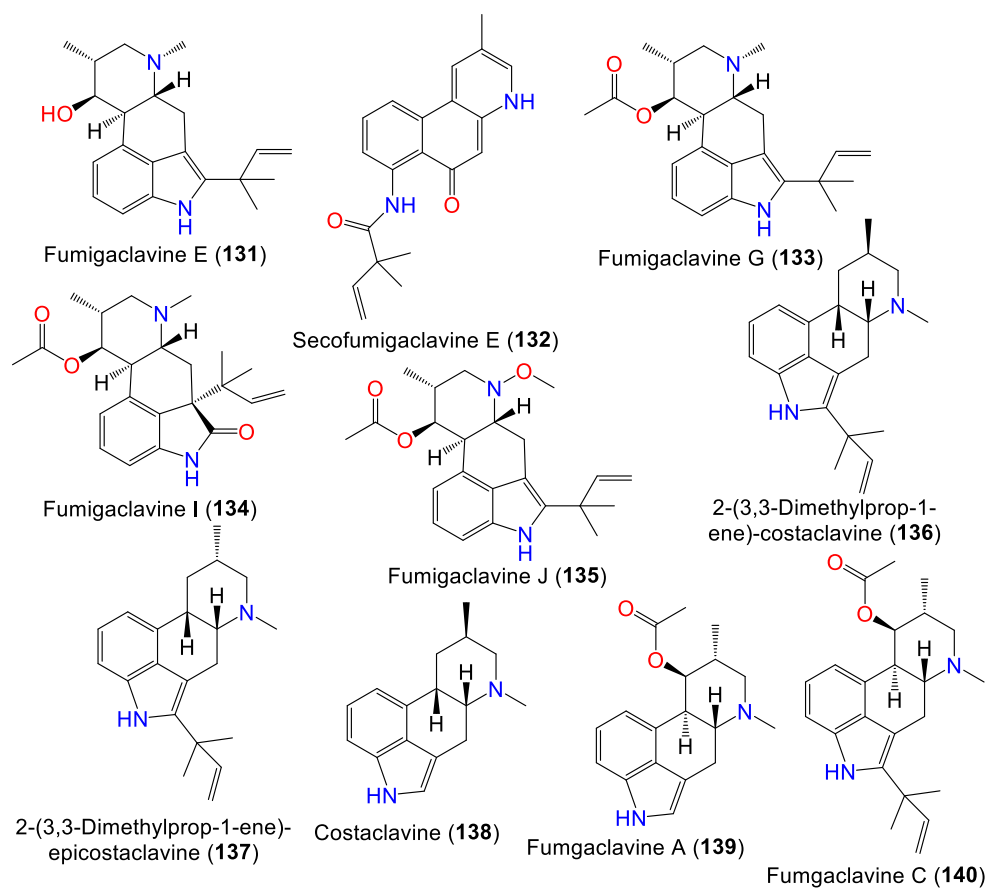


Fig. S11. Chemical structures of clavine-type ergot alkaloids (131–140).

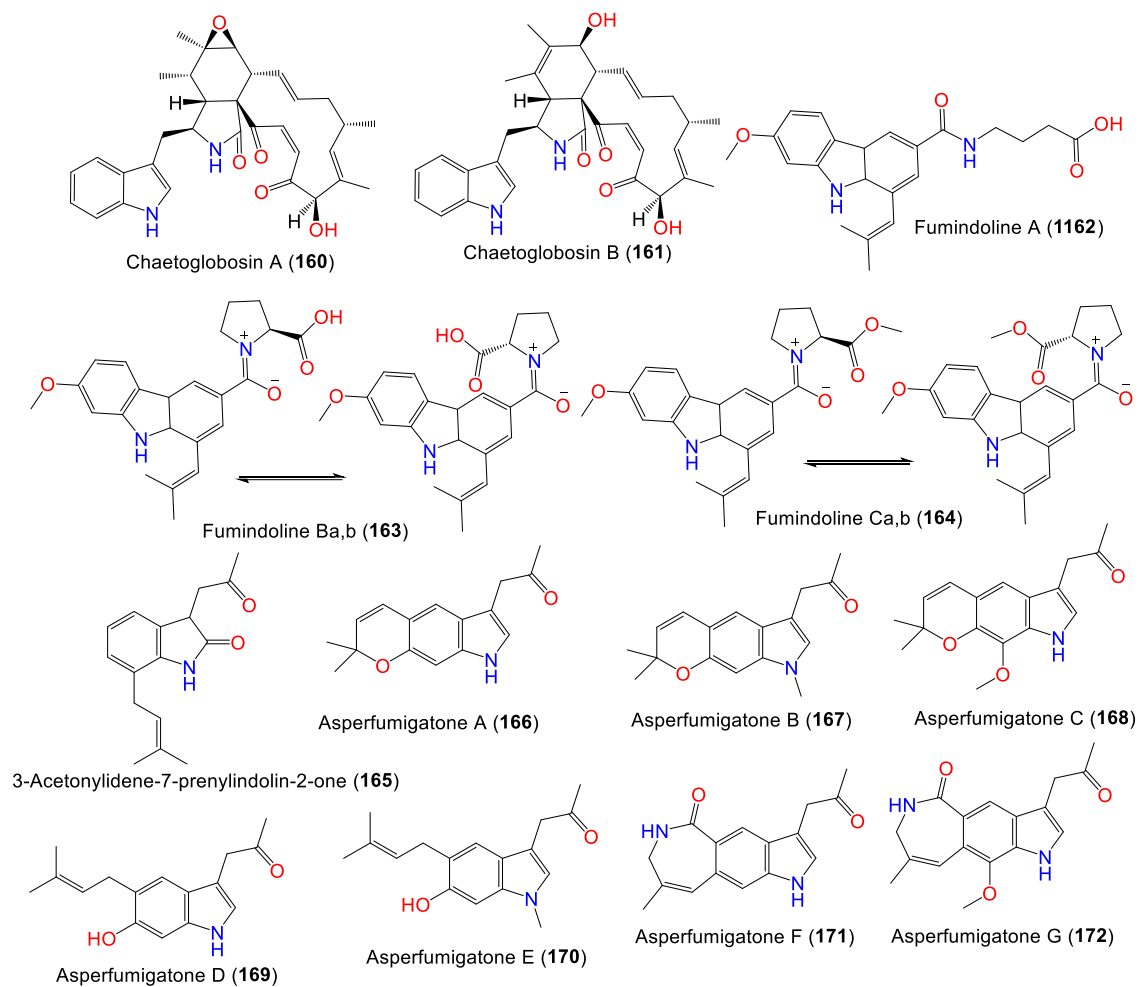


Fig. S12. Chemical structures of indoline (160–165) and indole (166–172) alkaloids.

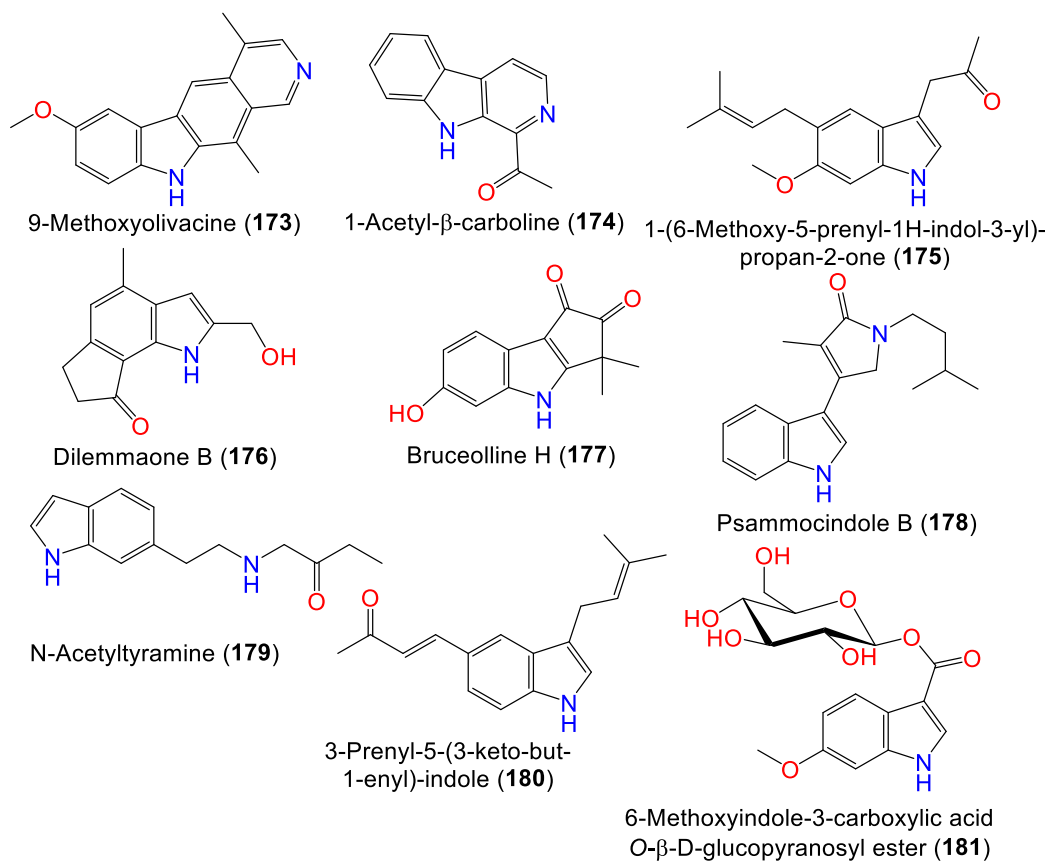


Fig. S13. Chemical structures of indole alkaloids (173–181).

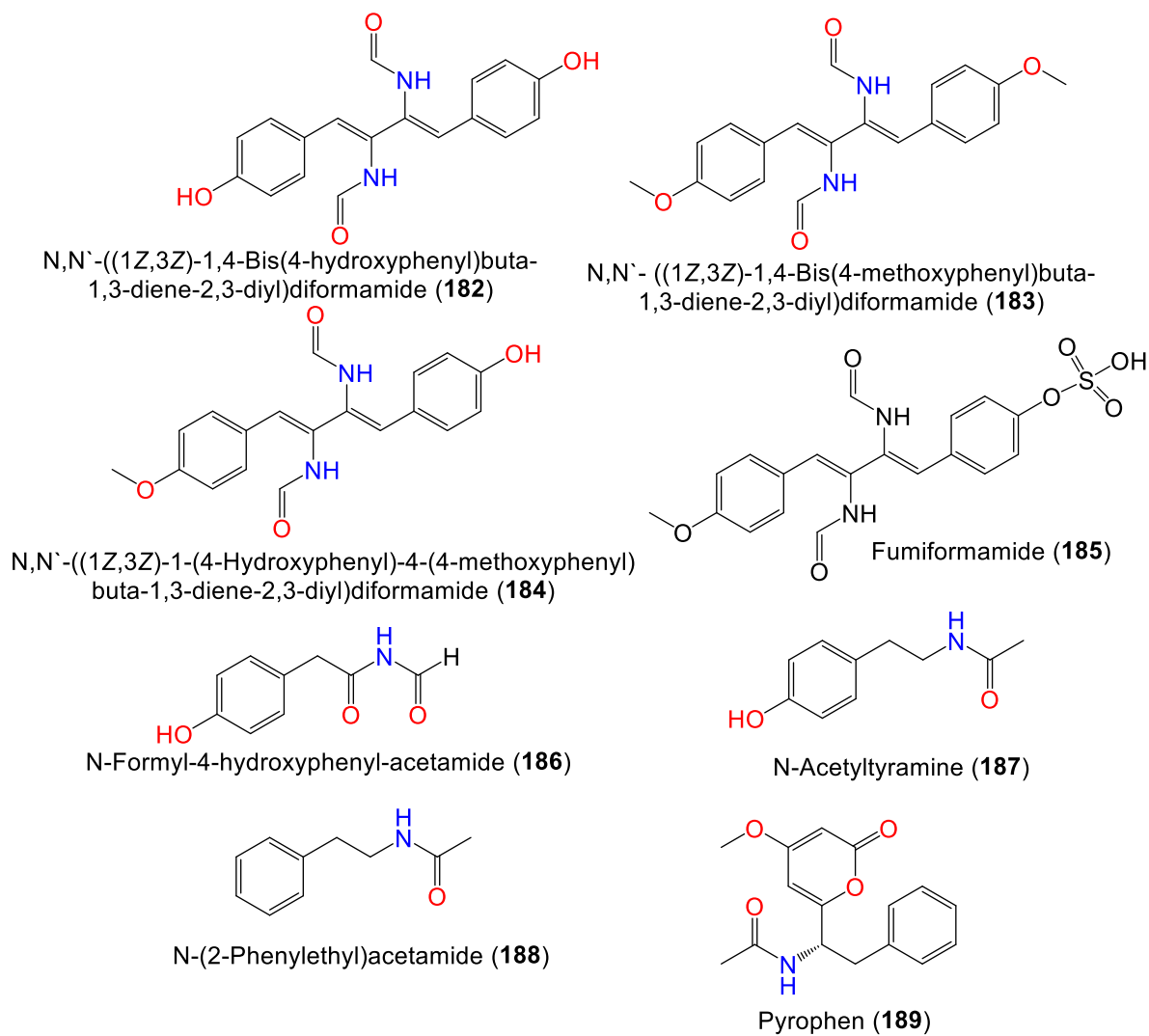


Fig. S14. Chemical structures of amide-containing alkaloids (182–189).

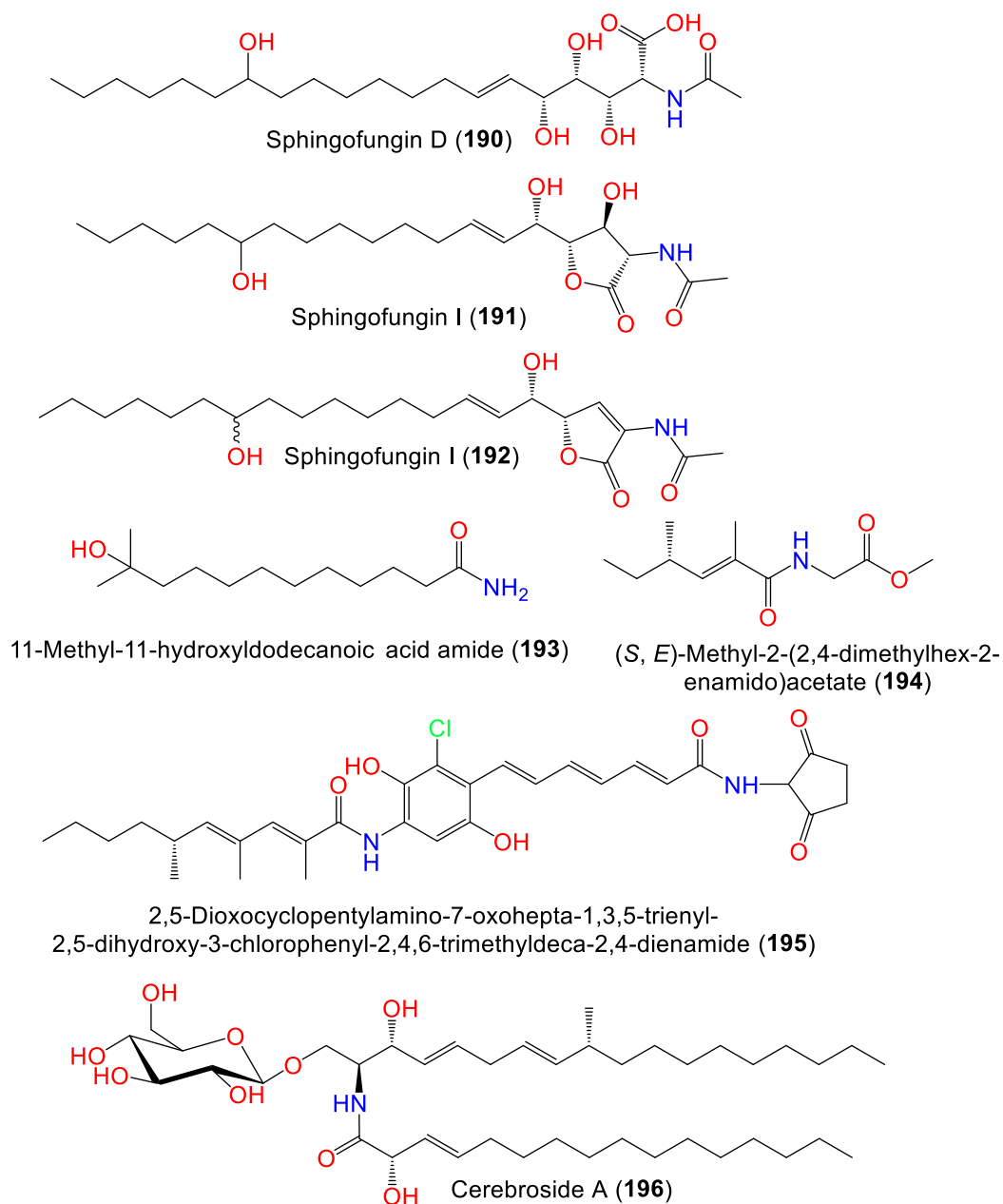


Fig. S15. Chemical structures of amide-containing alkaloids (190–196).

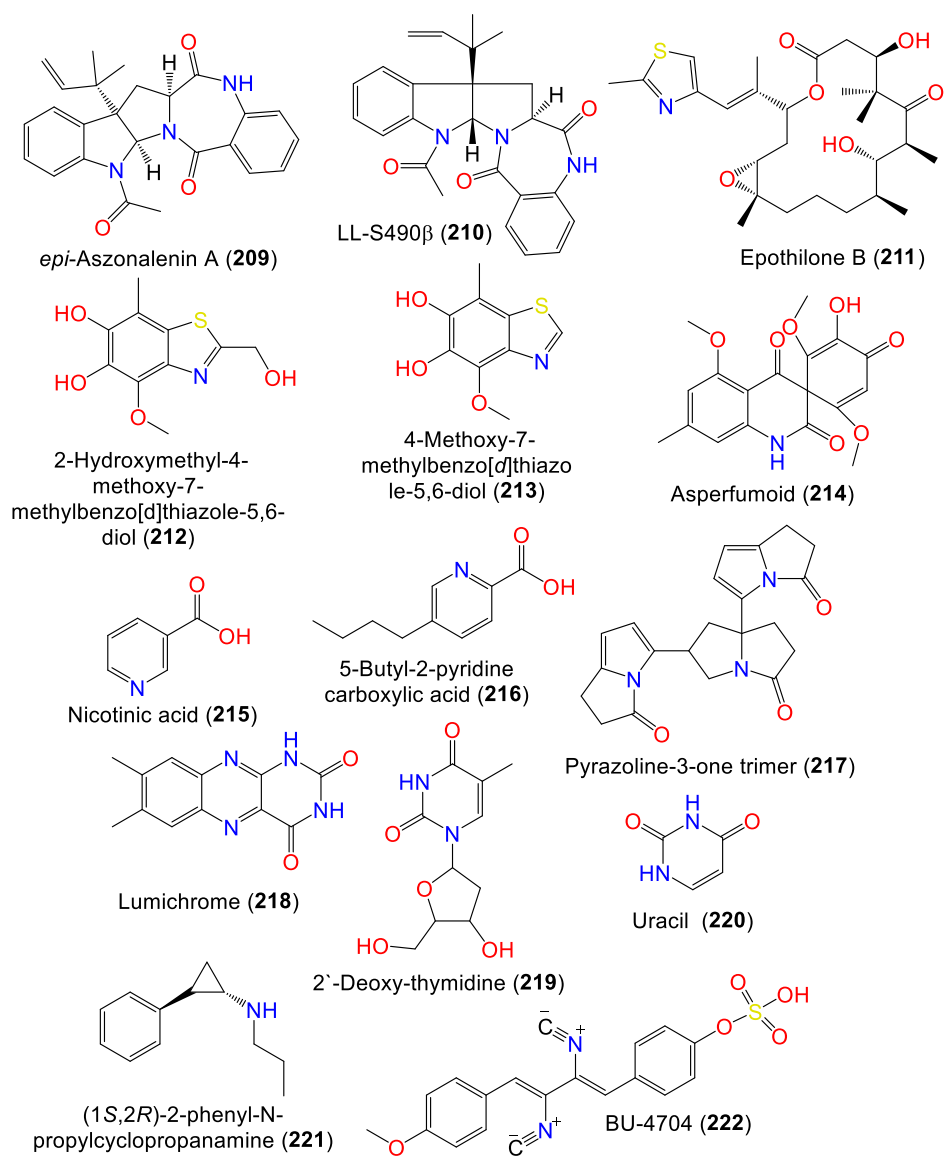


Fig. S16. Chemical structures of other alkaloids (209–222).

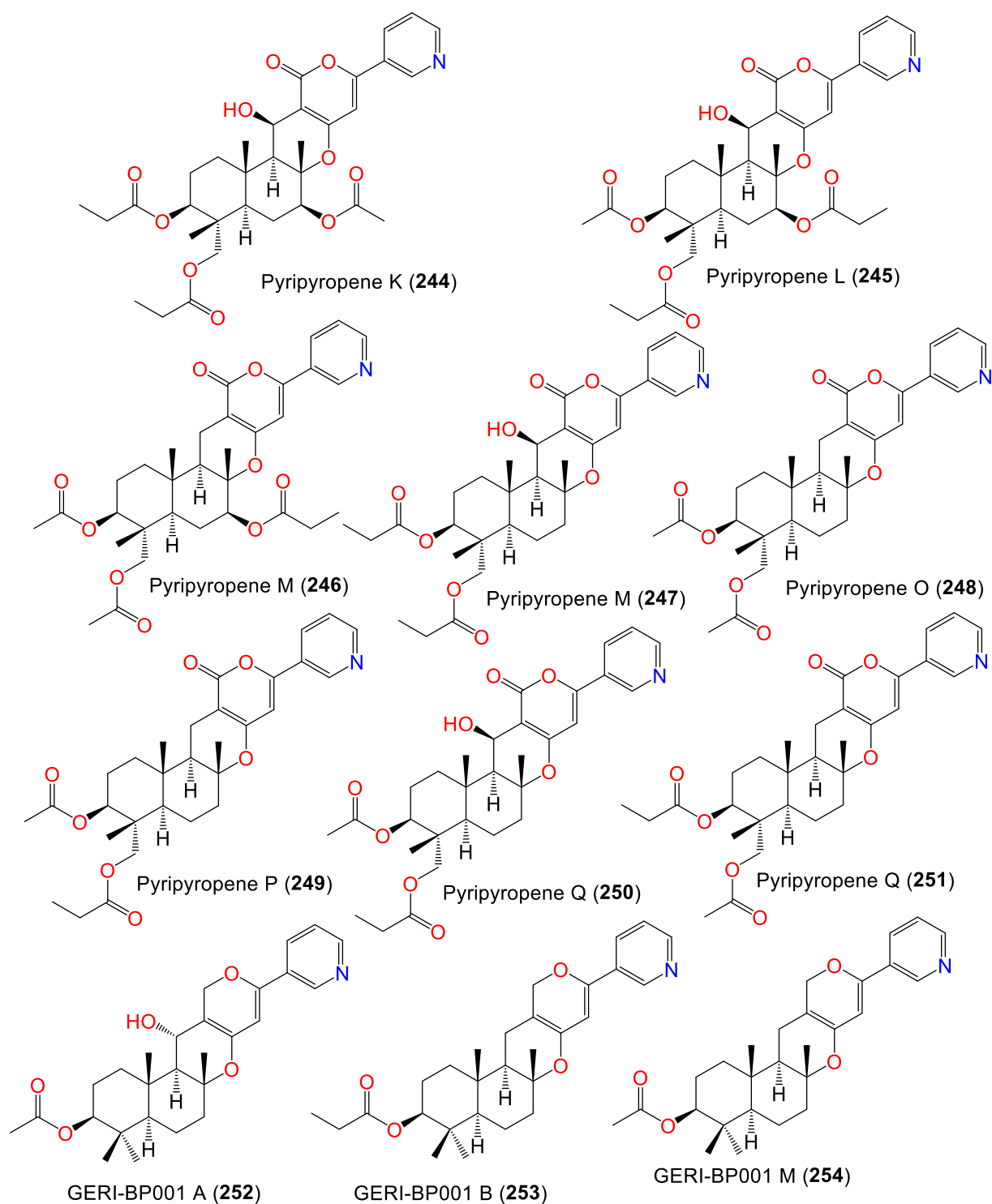


Fig. S17. Chemical structures of pyridino- α -pyrone sesquiterpenoids (244–254).

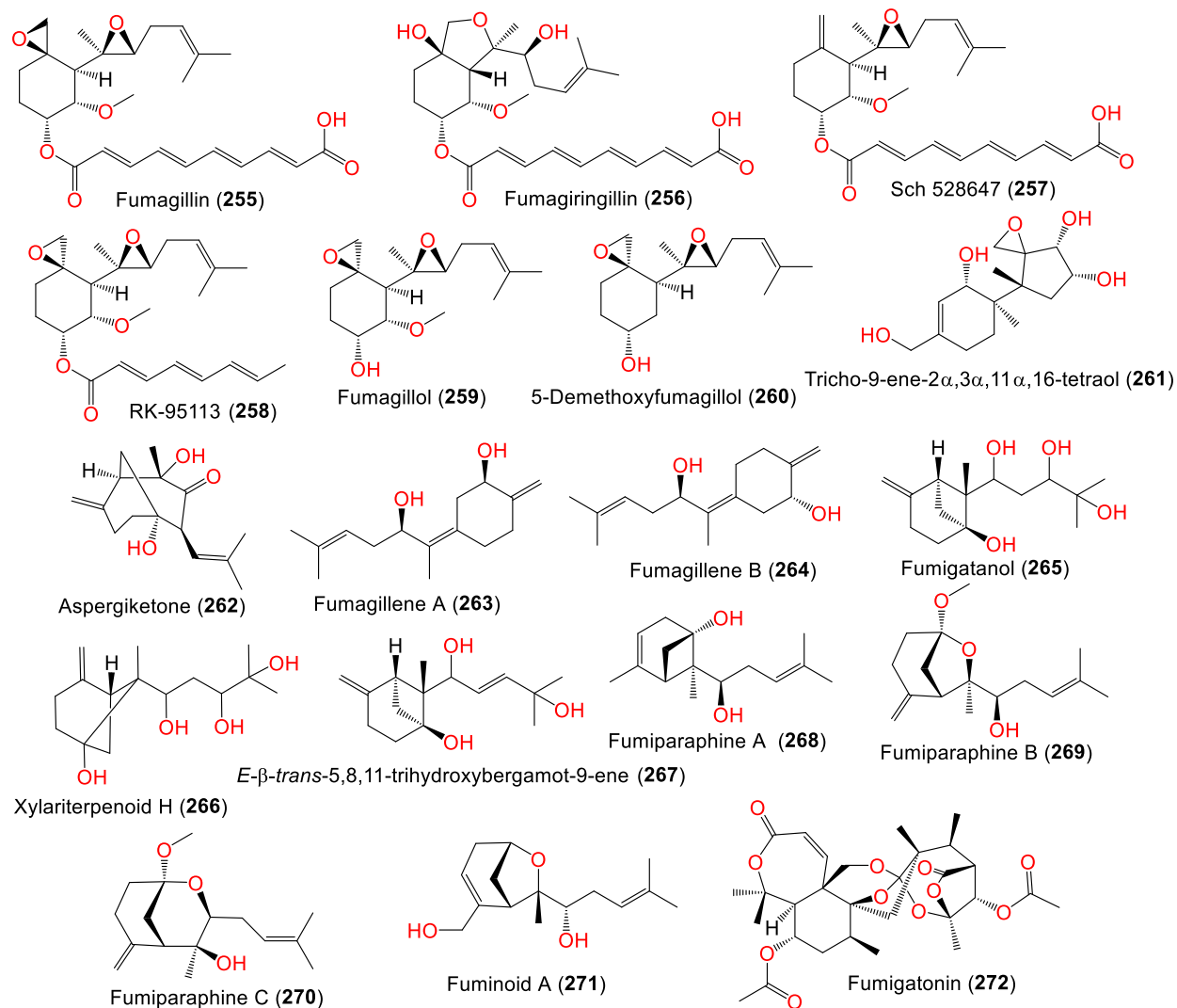


Fig. S18. Chemical structures of sesquiterpenoids (255–271) and meroterpenoid (272).

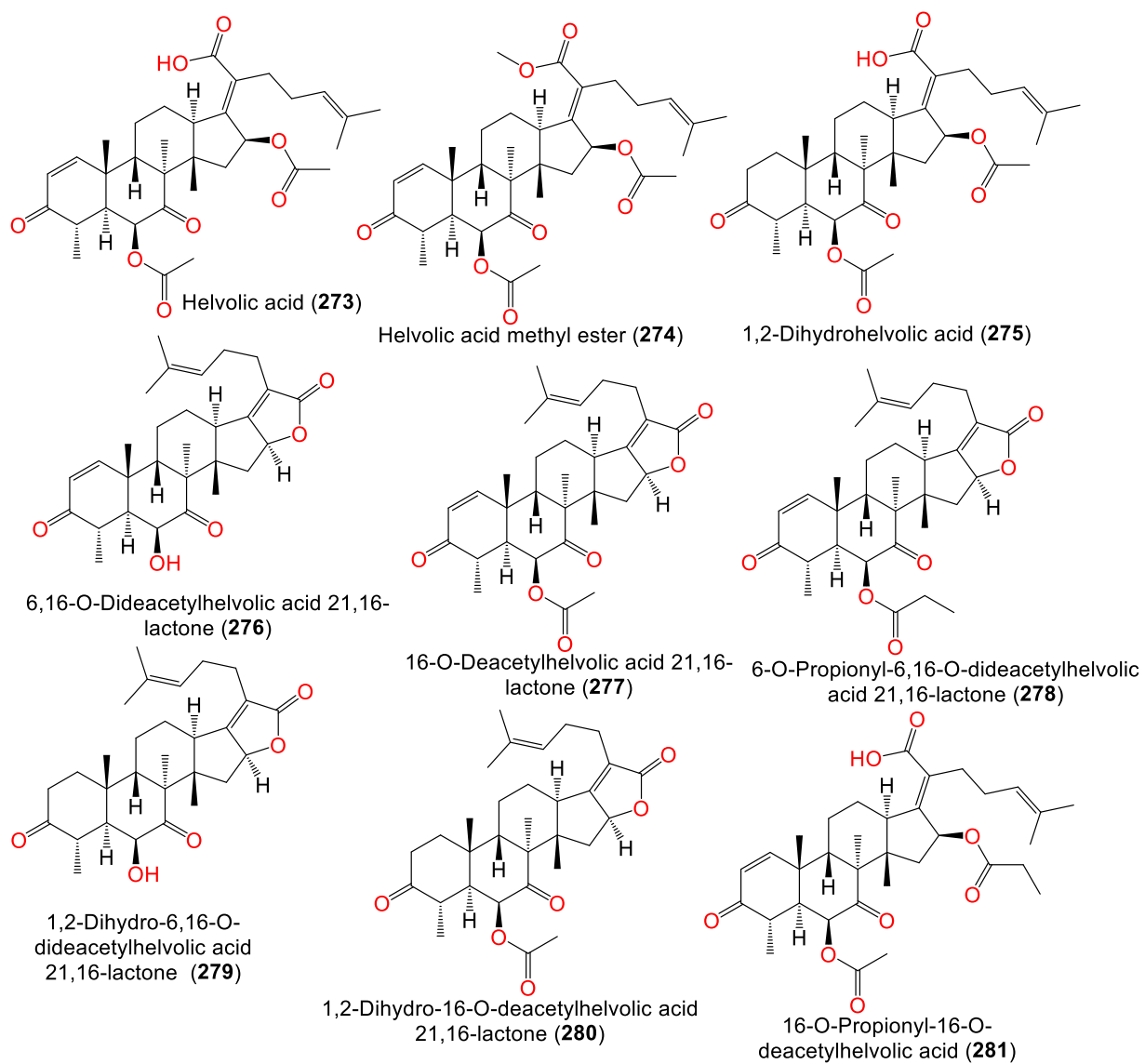


Fig. S19. Chemical structures of triterpenoids (273-281).

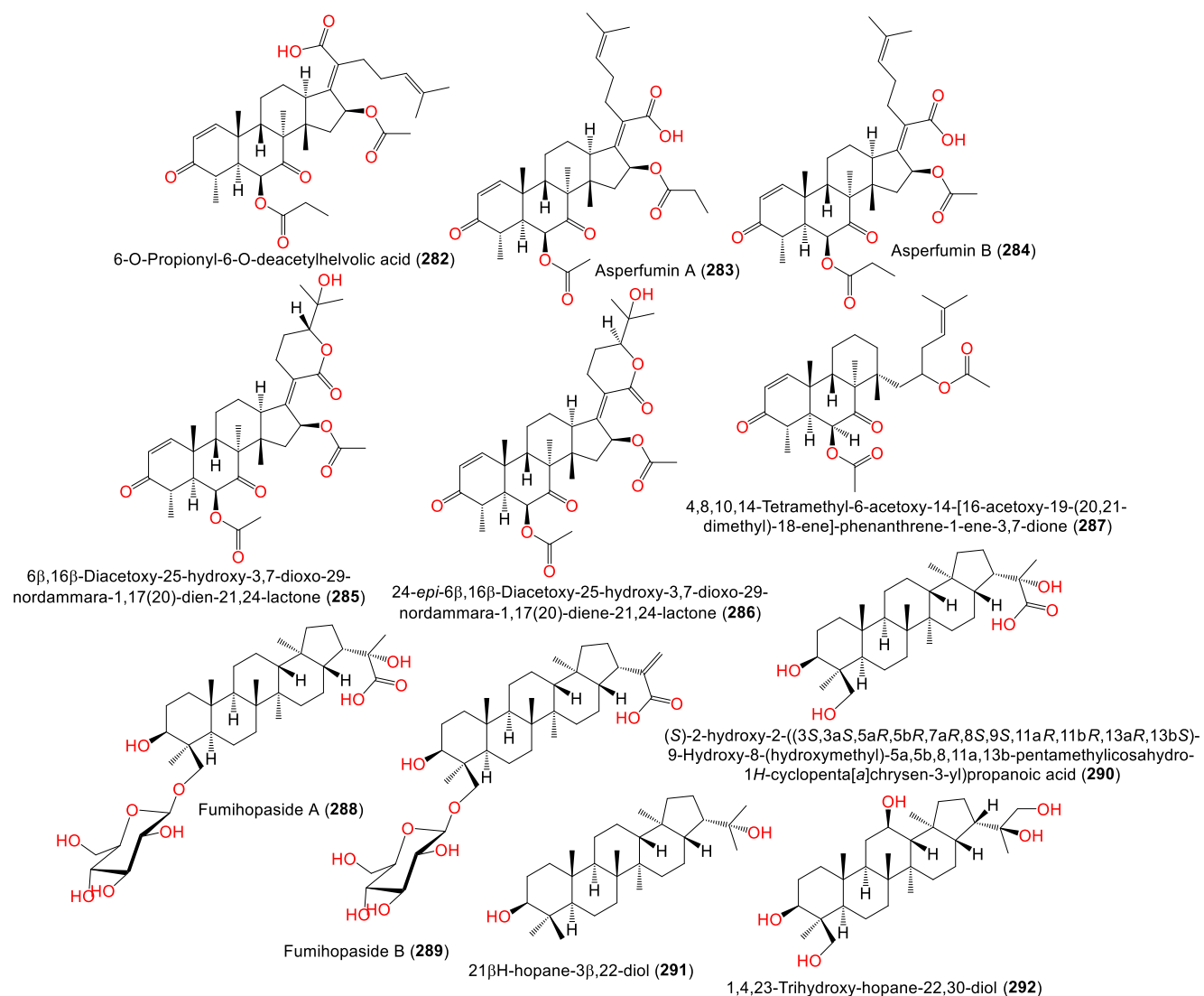


Fig. S20. Chemical structures of triterpenoids (282–292).

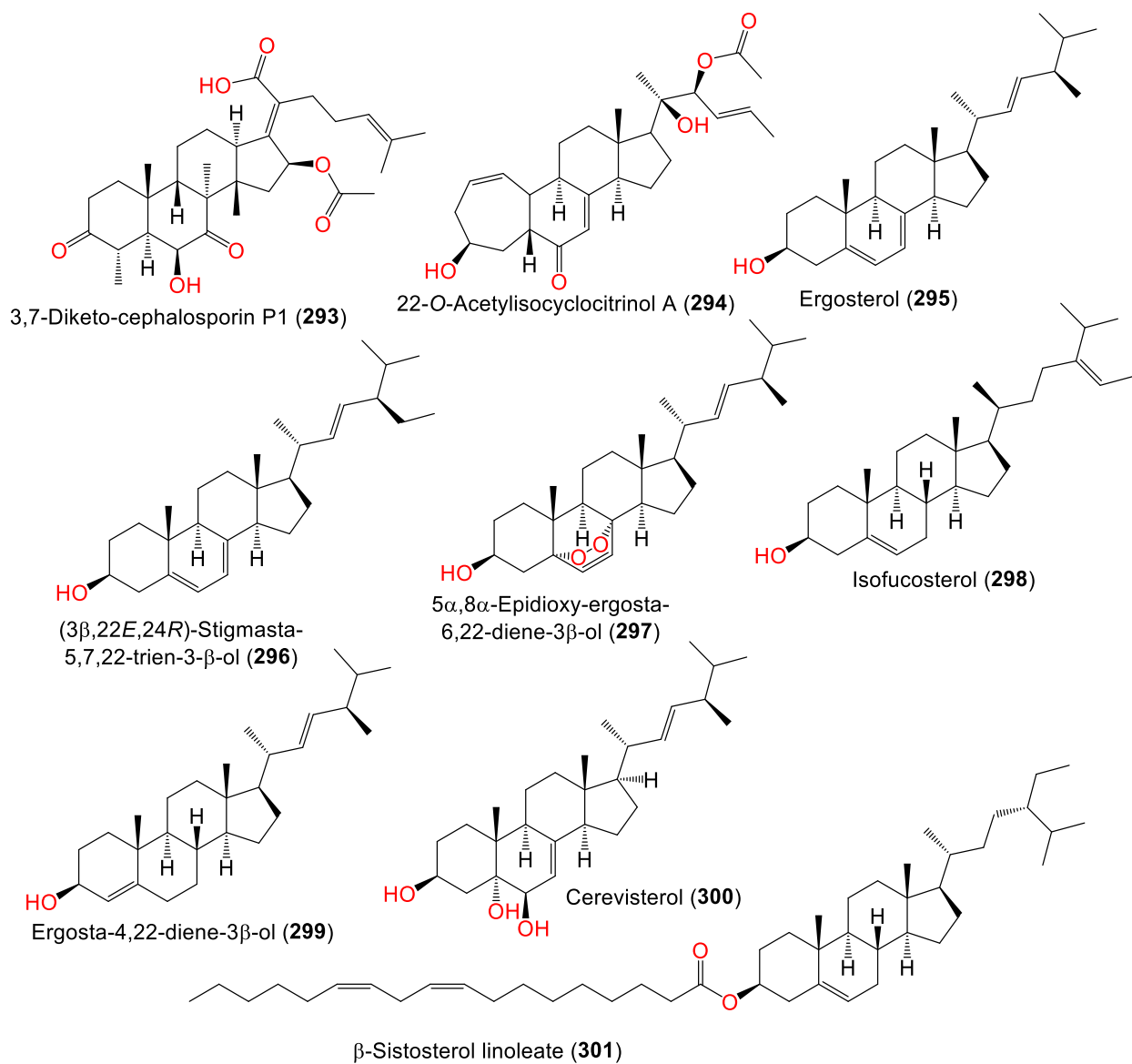


Fig. S21. Chemical structures of sterols (293-301).

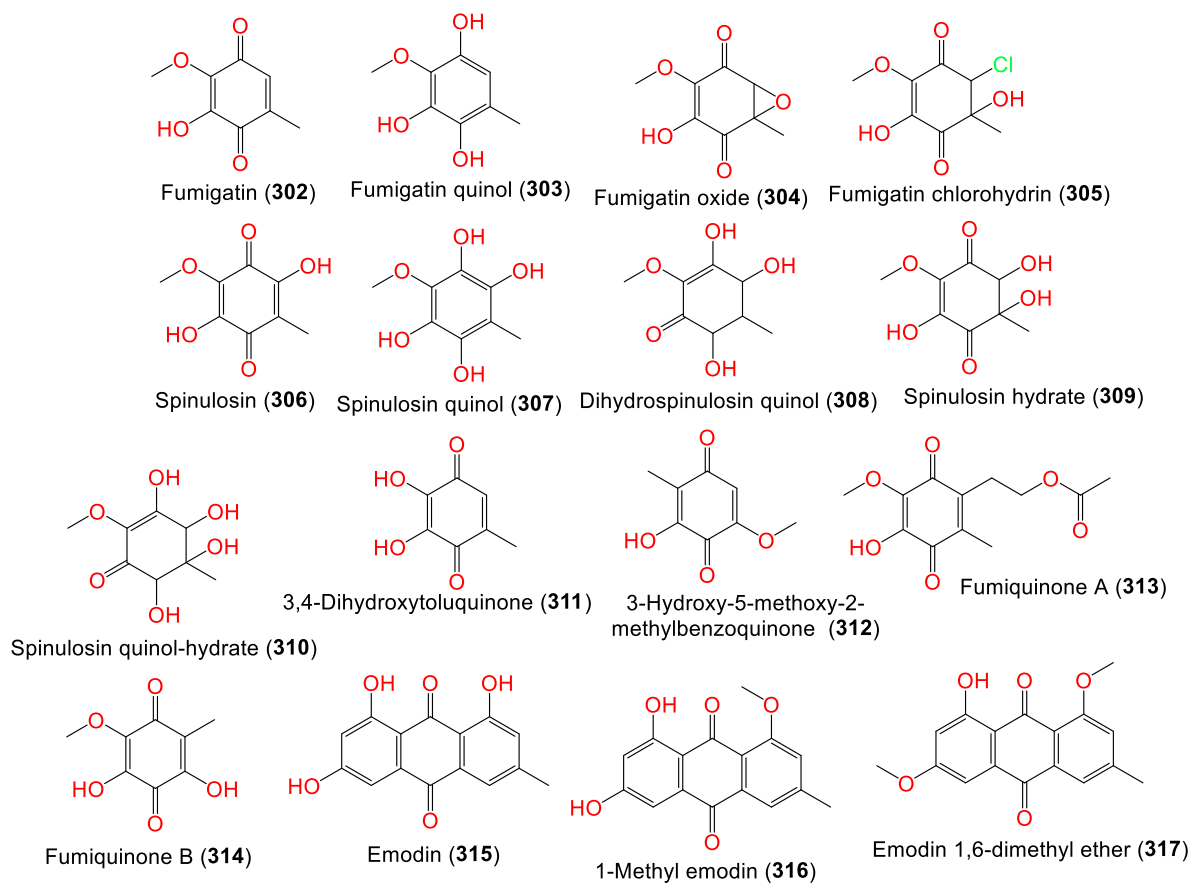


Fig. S22. Chemical structures of quinones (302-317).

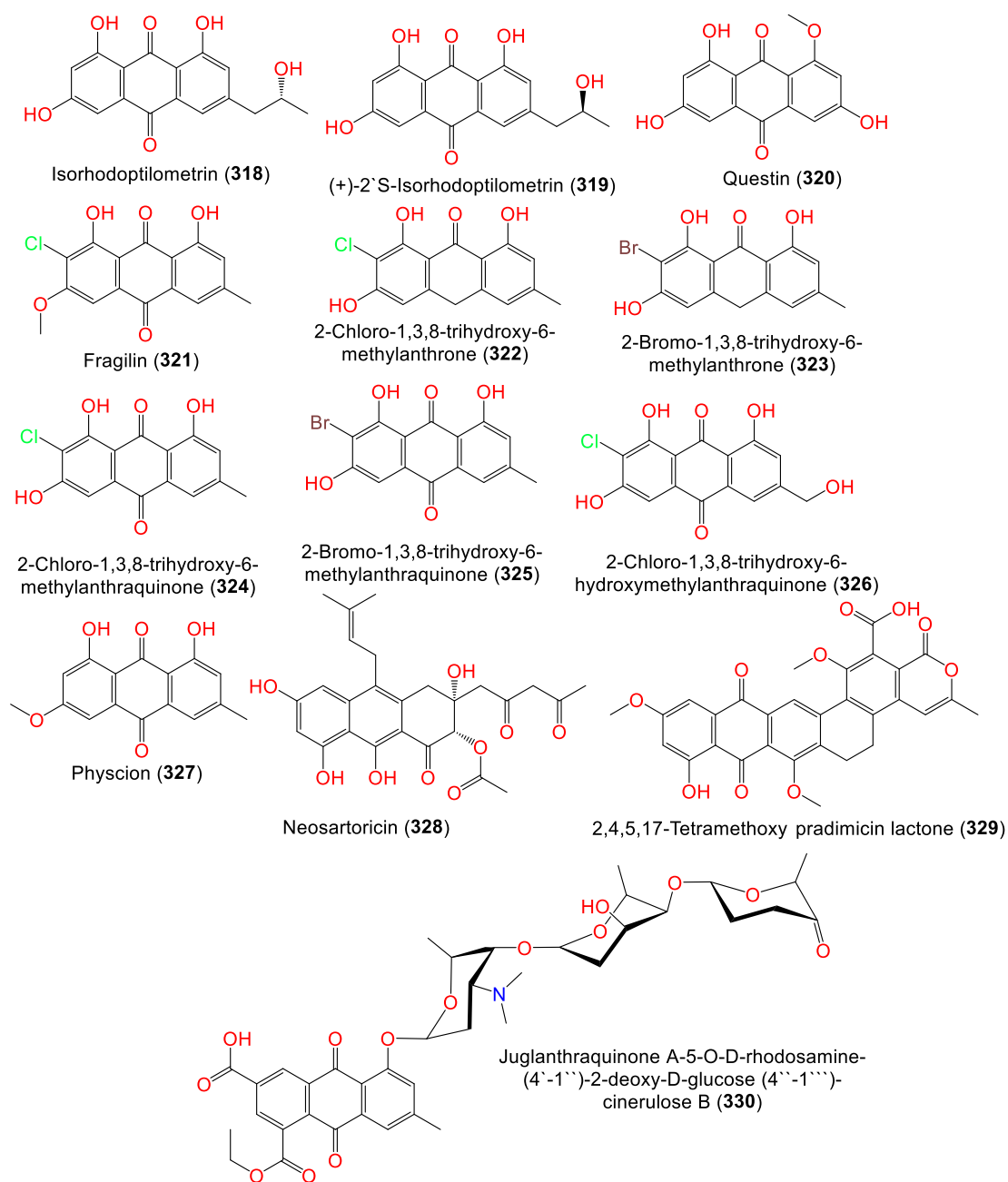


Fig. S23. Chemical structures of quinone derivatives (**318-330**).

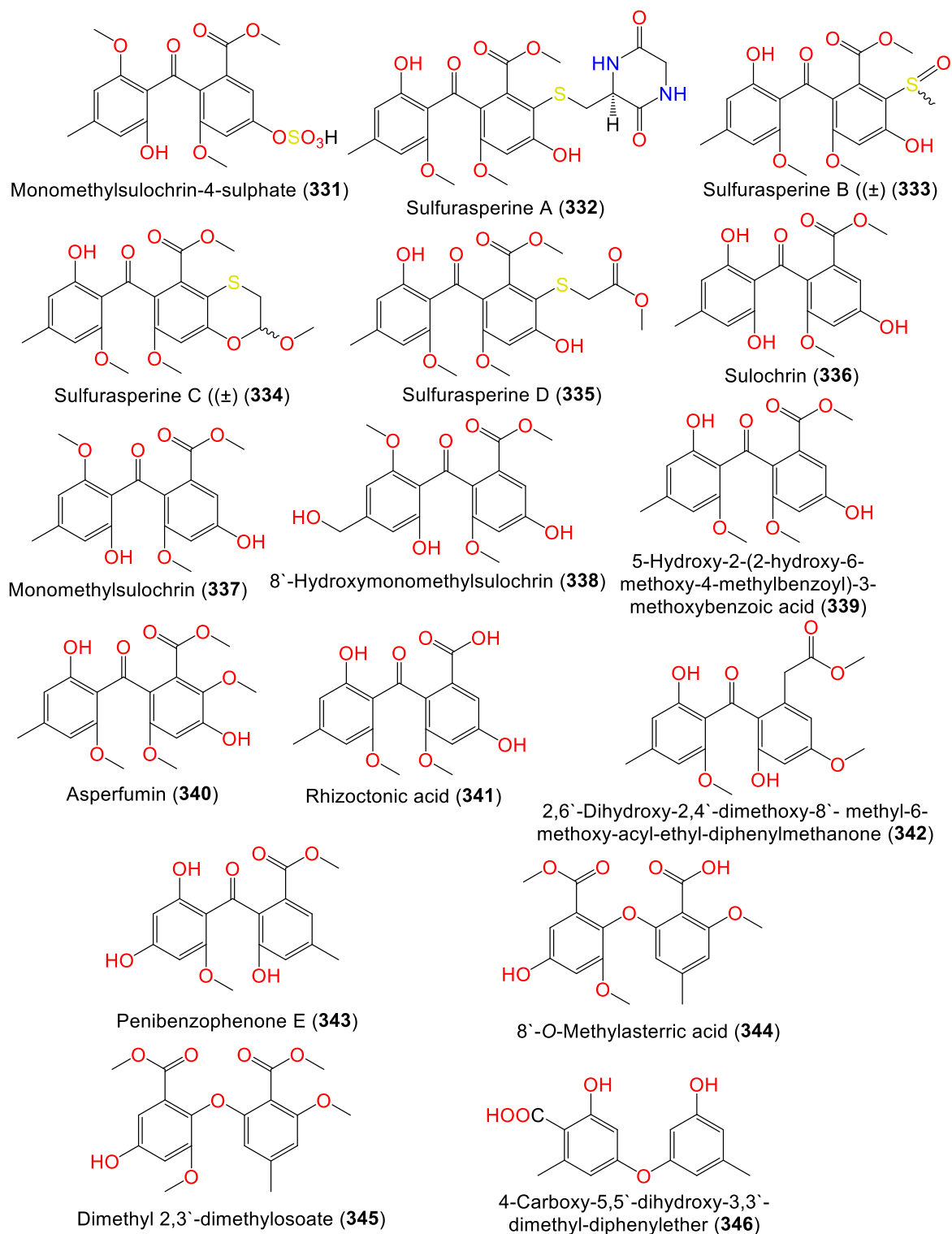


Fig. S24. Chemical structures of benzophenones (331–343) and diphenyl ethers (344–346).

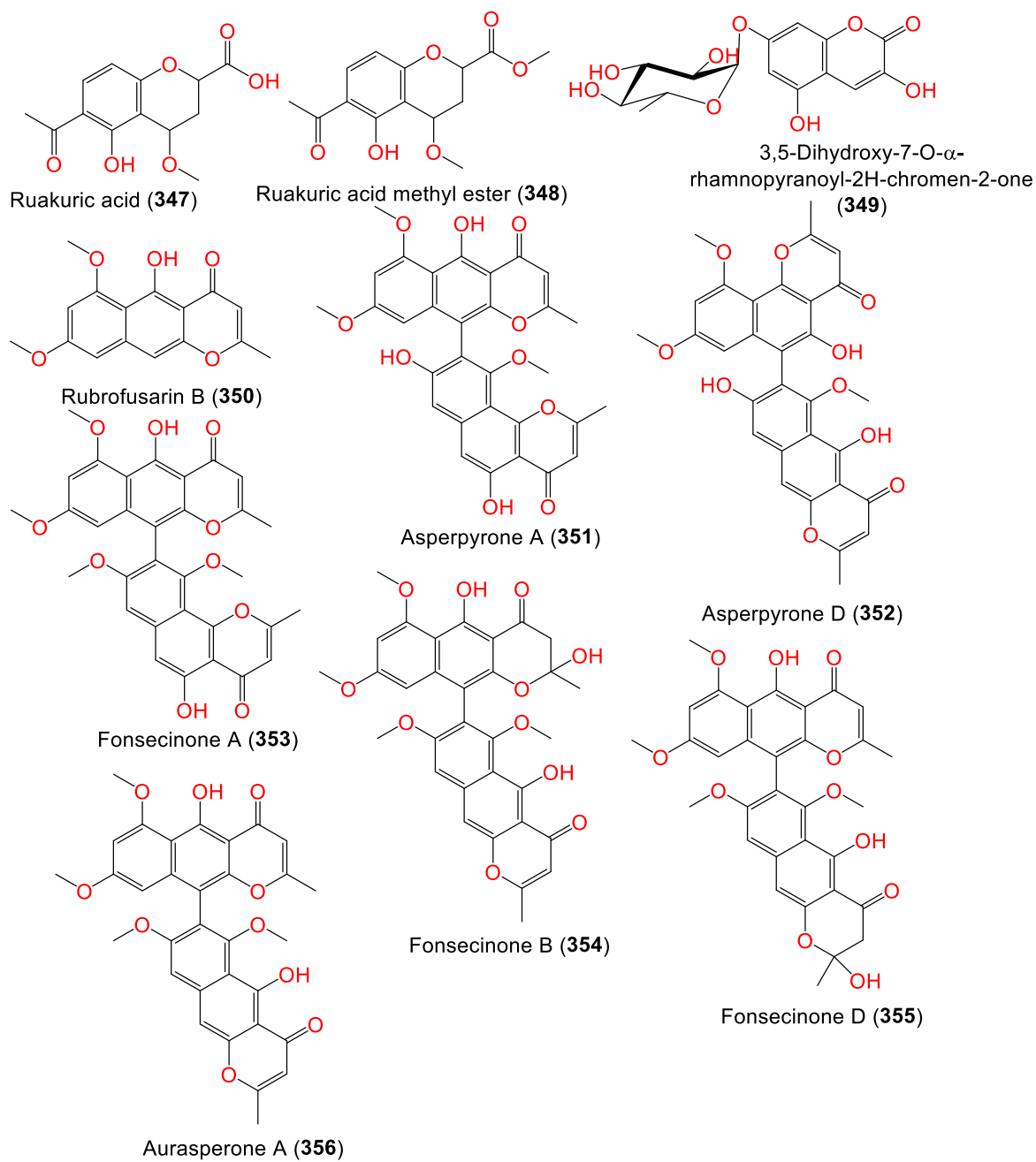


Fig. S25. Chemical structures of chromane derivatives (347–356).

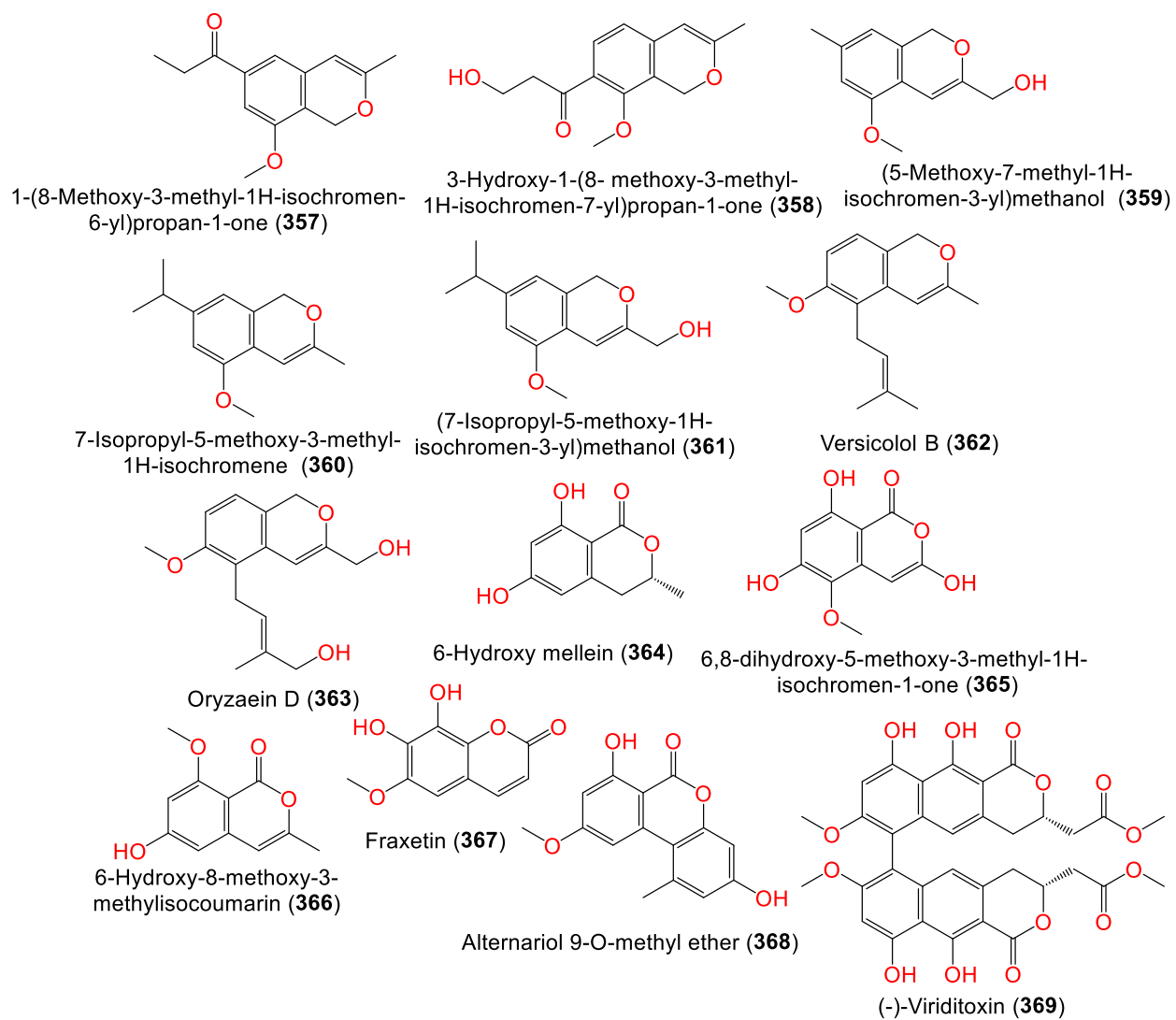


Fig. S26. Chemical structures of isochromane derivatives (357–369).

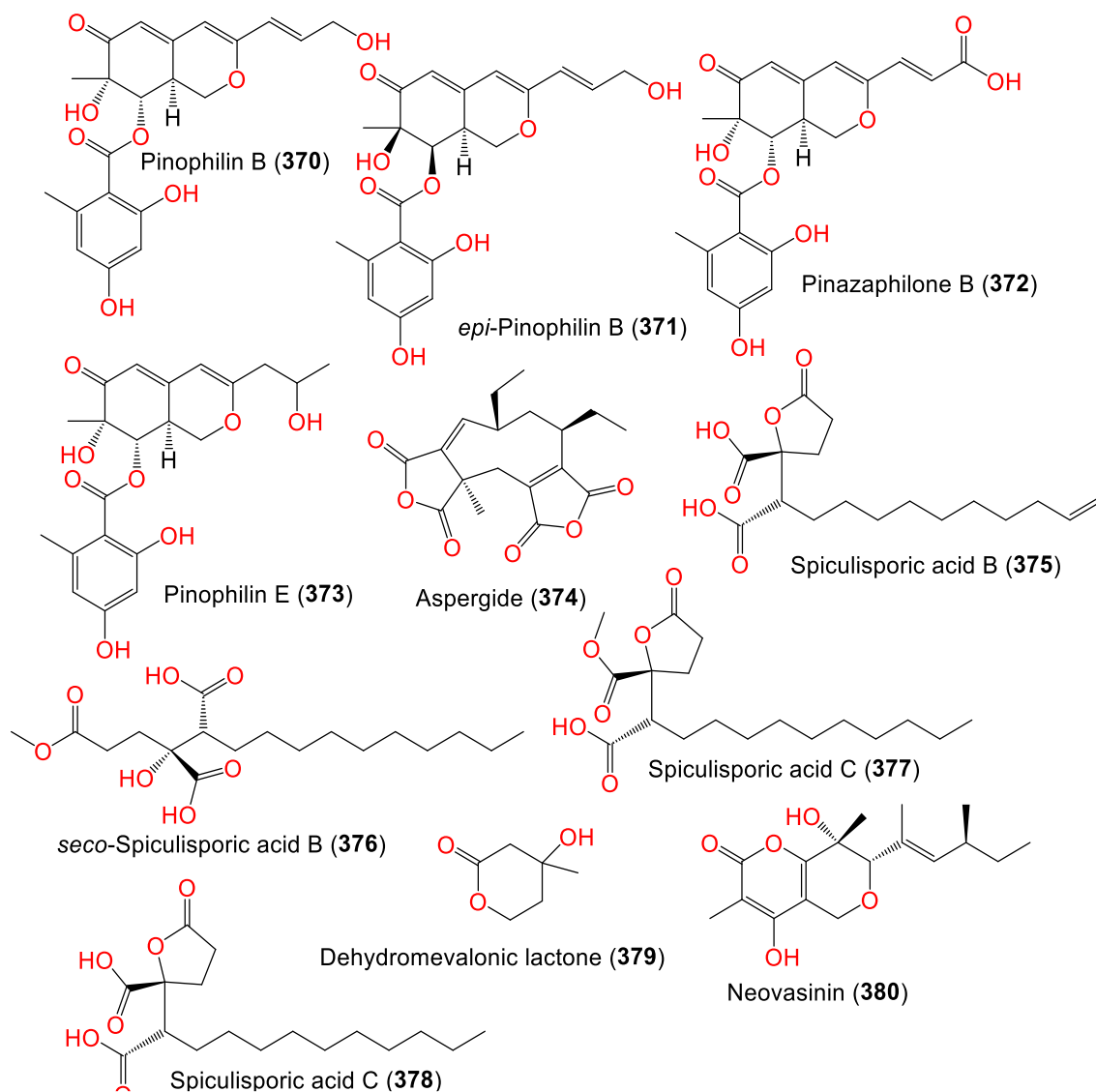


Fig. S27. Chemical structures of azophilane (370–373), anhydride (374–378), and pyranones (379 and 380).

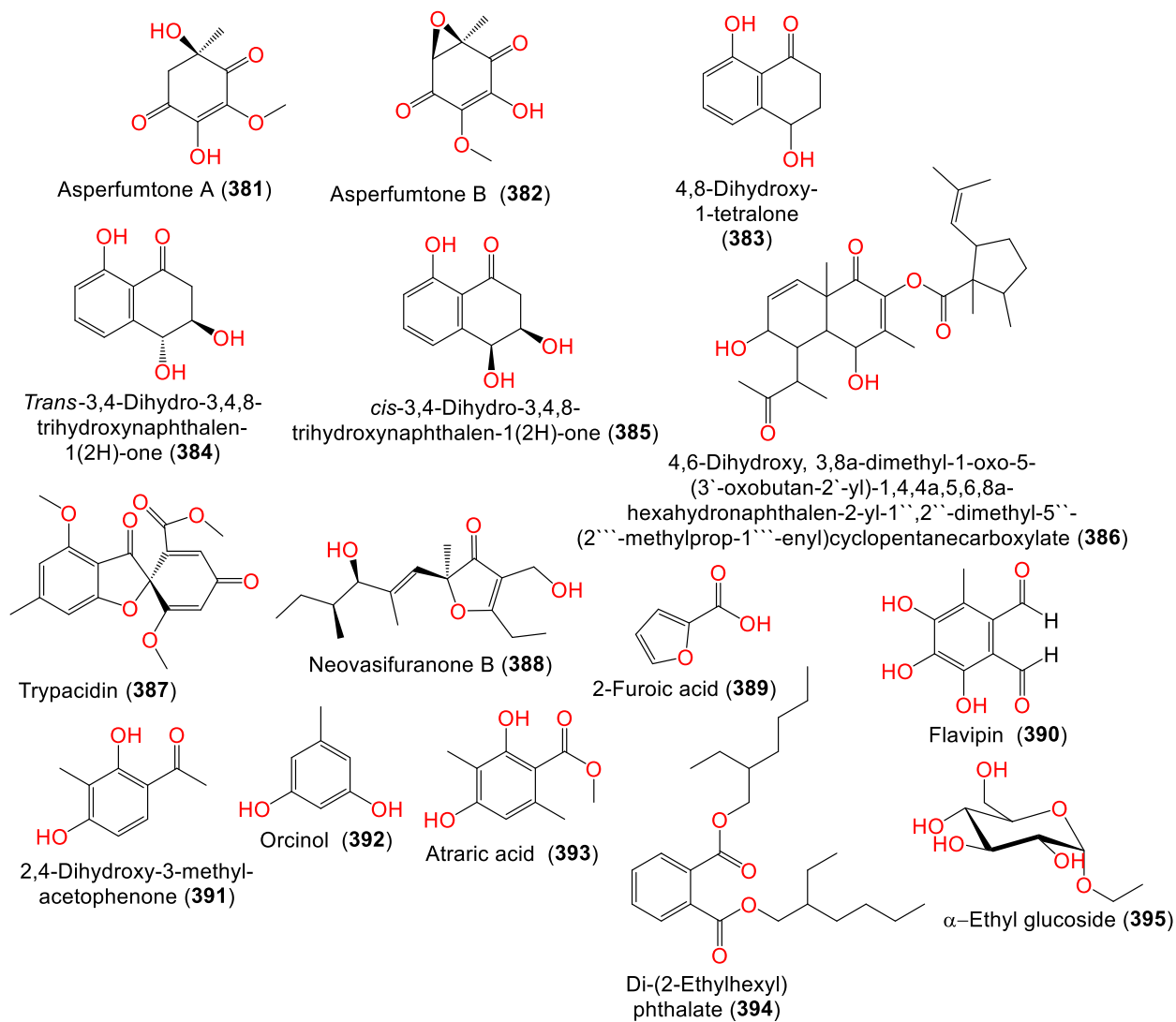


Fig. S28. Chemical structures of phenolics (381-395).

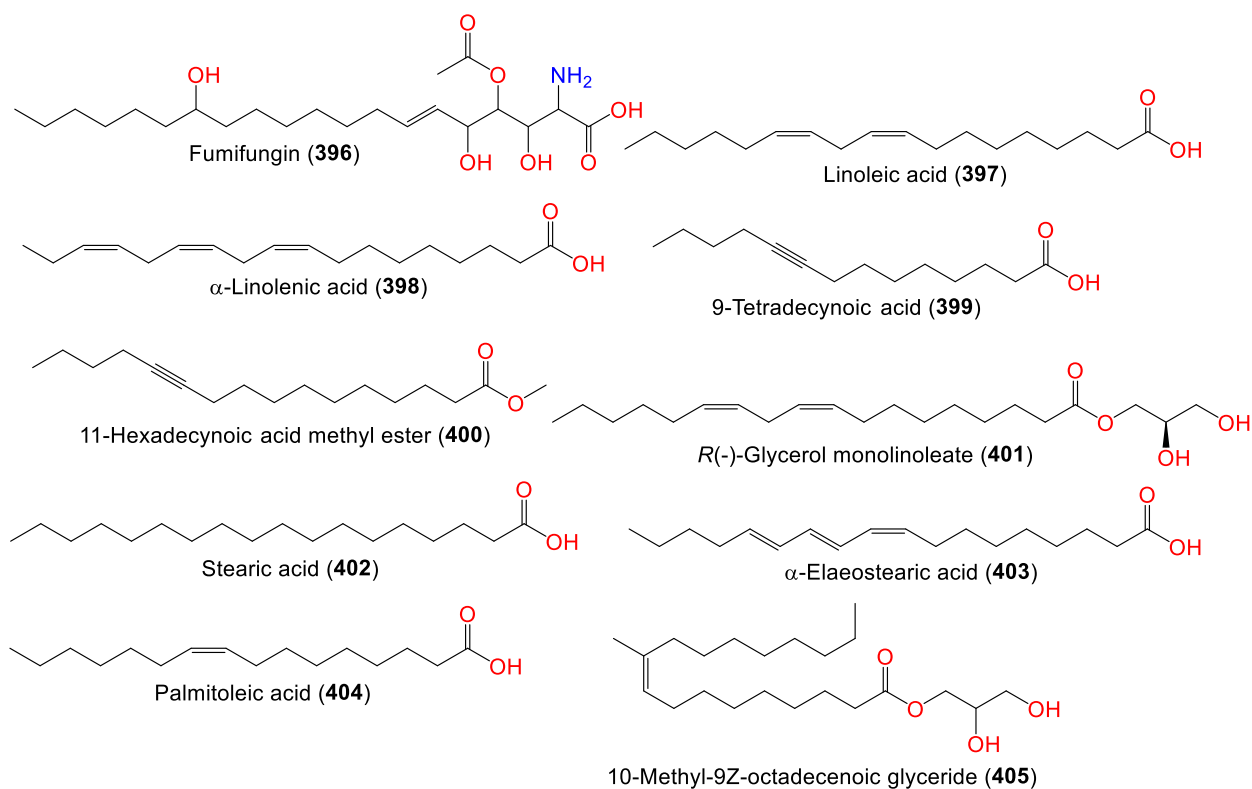
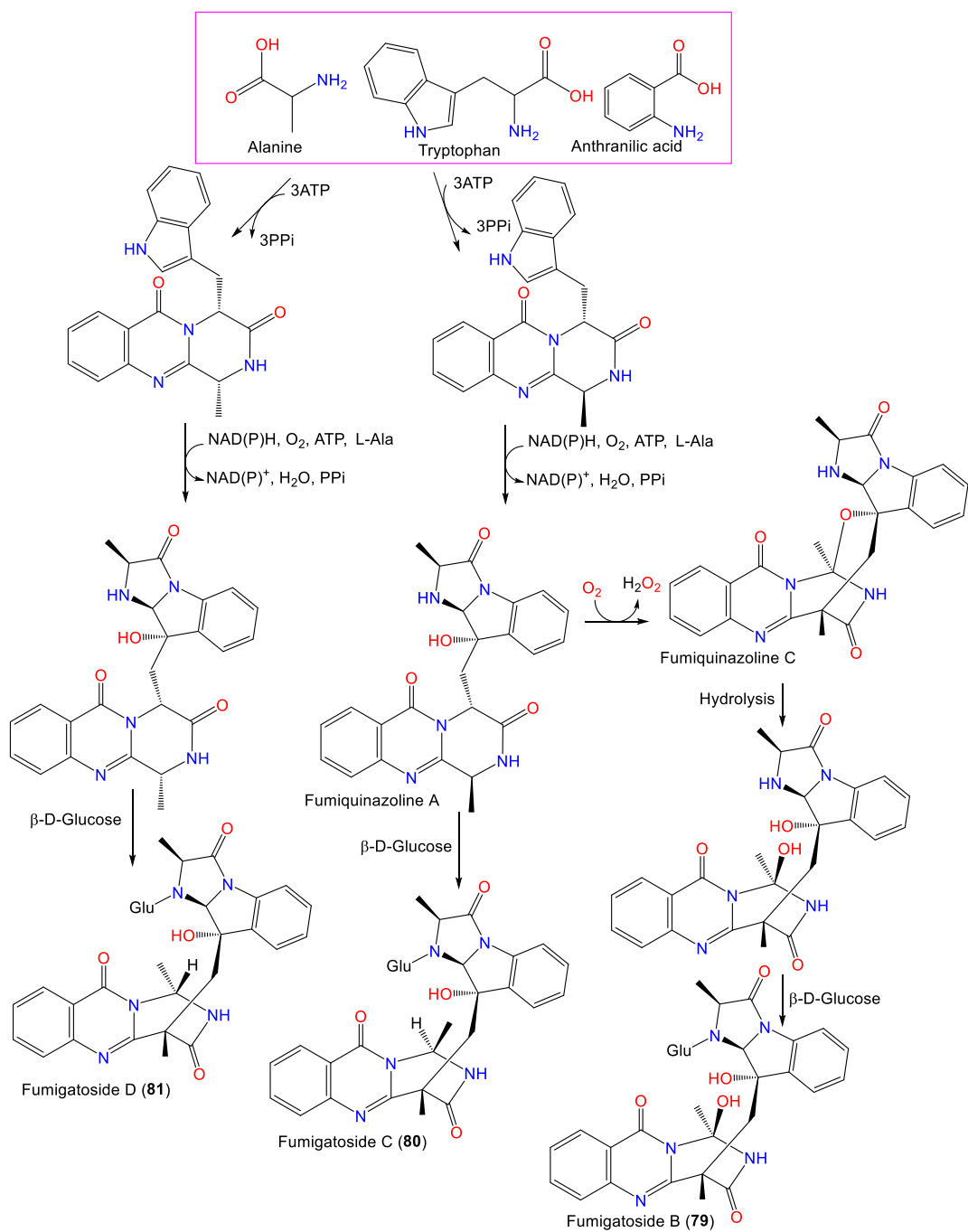
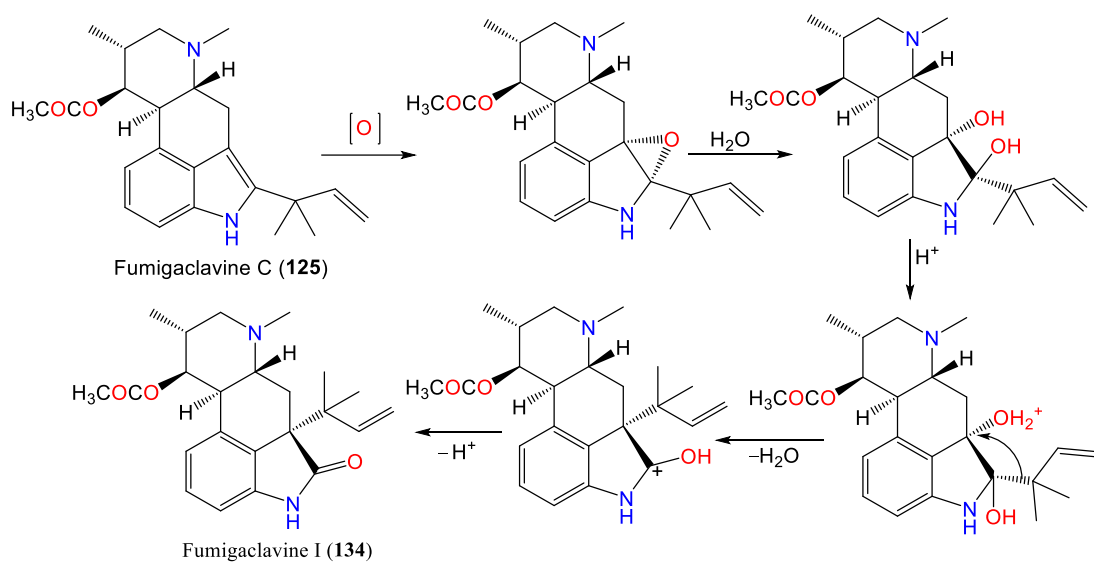


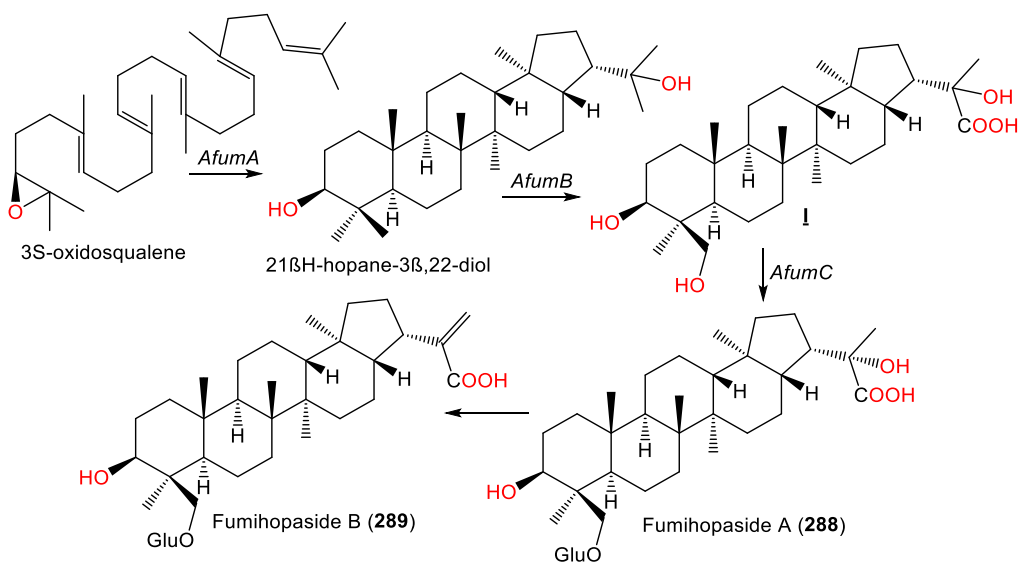
Fig. S29. Chemical structures of fatty acids and related derivatives (396–405).



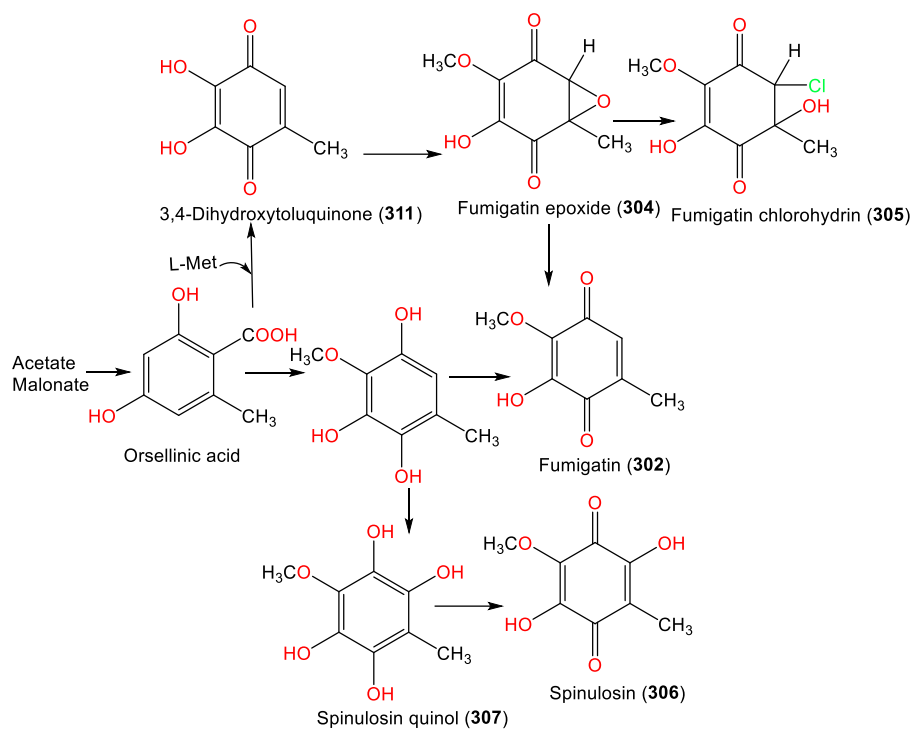
Scheme S1. Biosynthetic pathway of compounds 79–81 [74].



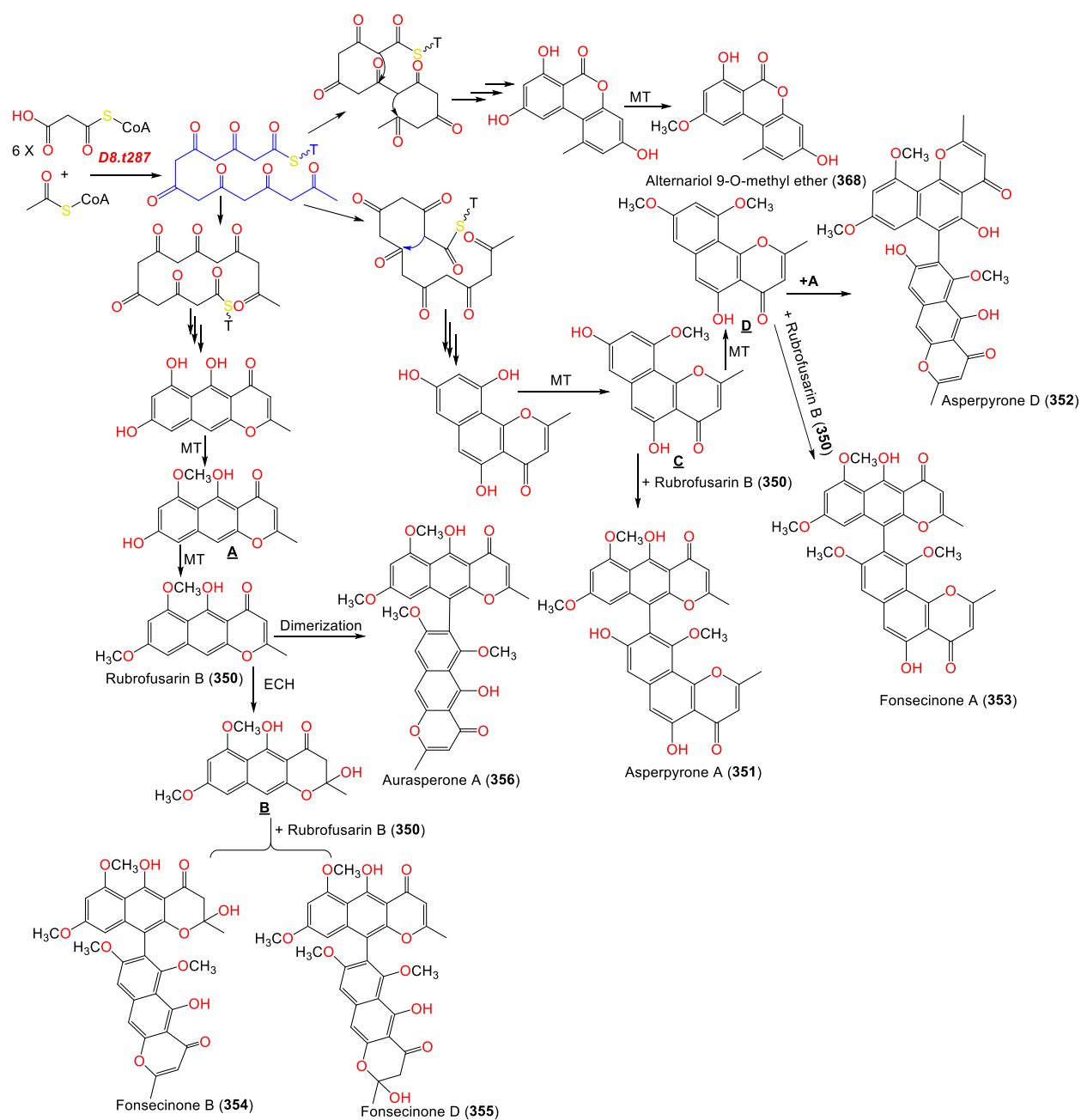
Scheme S2. Proposed biosynthesis of compound **134** from **125** [55].



Scheme S3. Biosynthetic pathway of compounds **288** and **289** [131].



Scheme S4. Biosynthetic pathway of quinones from orsellinic acid [133,135,136].



Scheme S5. Biosynthetic pathway of 350–356 and 368 [140].

Table S1. List of indole-diketopiperazine and indole-quinazoline alkaloids isolated from *Aspergillus fumigatus*.

Compound Name/Chemical Class	M. Wt.	Mol. Formula	Strain, Host, and Location	Ref.
Indole diketopiperazine				
Fumitremorgin A (1)	579	C ₃₂ H ₄₁ N ₃ O ₇	<i>A. fumigatus</i> Fres., cultured, Japan	[26]
Secofumitremorgin A (2)	407	C ₂₃ H ₂₅ N ₃ O ₄	<i>A. fumigatus</i> SD-406, cultured, deep-sea sediment, East China Sea, China	[29]
Fumitremorgin B (3)	479	C ₂₇ H ₃₃ N ₃ O ₅	<i>A. fumigatus</i> Fres., cultured, Japan	[26]
	-	-	<i>A. fumigatus</i> BM939, cultured, sea sediment sample, mouth of Oi River, Sizuoka prefecture, Japan	[30]
	-	-	<i>A. fumigatus</i> KMM 4631, cultured, marine isolate, Russia	[31]
	-	-	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine holothurian), Lingshan Island, Qingdao, China	[32]
	-	-	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, China	[33]
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
	-	-	<i>A. fumigatus</i> MBC-F1-10/ <i>Streptomyces bullii</i> co-culture, hyper-arid Atacama Desert soil, Chile	[35]
	-	-	<i>A. fumigatus</i> AR05, <i>Astragalus membranaceus</i> (root), Hengshan Mountains, Shanxi Province, China	[36]
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), China	[37]
	-	-	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, China	[38]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
	-	-	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan Autonomous Prefecture, China	[40]
Secofumitremorgin B (4)	407	C ₂₃ H ₂₅ N ₃ O ₄	<i>A. fumigatus</i> SD-406, cultured, deep-sea sediment, East China Sea, China	[29]
13-Oxofumitremorgin B (5)	477	C ₂₇ H ₃₁ N ₃ O ₅	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine holothurian), Lingshan Island, Qingdao, China	[32]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
Derivative A-Fumitremorgin B (6)	495	C ₂₇ H ₃₃ N ₃ O ₆	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine holothurian), Lingshan Island, Qingdao, China.	[32]
Derivative A epimer-Fumitremorgin B (7)	495	C ₂₇ H ₃₃ N ₃ O ₆	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine holothurian), Lingshan Island, Qingdao, China.	[32]
Fumitremorgin C (8)	379	C ₂₂ H ₂₅ N ₃ O ₃	<i>A. fumigatus</i> BM939, cultured, sea sediment sample, mouth of Oi River, Sizuoka prefecture, Japan	[30]
	-	-	<i>A. fumigatus</i> CANU A151, saline lake sand, Western Australia	[41]
	-	-	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China	[42]
	-	-	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine holothurian), Lingshan Island, Qingdao, China.	[32]
	-	-	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, China	[33]
	-	-	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China	[43]
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
	-	-	<i>A. fumigatus</i> MBC-F1-10/ <i>Streptomyces bullii</i> co-culture, hyper-arid Atacama Desert soil, Chile	[35]

	-	-	<i>A. fumigatus</i> AR05, <i>Astragalus membranaceus</i> (root), [36] Hengshan Mountains, Shanxi Province, China
	-	-	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, [44] Shanxi, China
	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), [45] Maoer Mountain, Guangxi Zhuang Autonomous Region, China
	-	-	<i>A. fumigatus</i> , coastal saline soil, Wudi, Shandong, China [46]
	-	-	<i>A. fumigatus</i> SD-406, cultured, deep-sea sediment, East [29] China Sea, China
	-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora mucronata</i> (flower), [47] Dong Zhai Gang-Mangrove Garden, on Hainan Island, China
	-	-	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, [38] China
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
	-	-	<i>A. fumigatus</i> M1, <i>Aconitum brevicalcaratum</i> (roots), [48] Kunming, Yunnan, China
	-	-	<i>A. fumigatus</i> UIAU-3F, soil, River Oyun in Kwara State, [49] Nigeria
	-	-	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), [50] Kunming, Yunnan, China
	-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, [51] China
12 α -Fumitremorgin C (9)	379	C ₂₂ H ₂₅ N ₃ O ₃	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng [52] Biosphere Reserve, Jiangsu, China
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), China [37]
12 α ,13 α - Dihydroxyfumitremorgin C (10)	411	C ₂₂ H ₂₅ N ₃ O ₅	<i>A. fumigatus</i> DSM 790, Germany [15]
	-	-	<i>A. fumigatus</i> BM939, cultured, sea sediment sample, mouth [30] of Oi River, Sizuoka prefecture, Japan
	-	-	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine [32] holothurian), Lingshan Island, Qingdao, China.
	-	-	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, [33] China
	-	-	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China [43]
	-	-	<i>A. fumigatus</i> MBC-F1-10/ <i>Streptomyces bullii</i> co-culture, [35] hyper-arid Atacama Desert soil, Chile
	-	-	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, [44] Shanxi, China
	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), [45] Maoer Mountain, Guangxi Zhuang Autonomous Region, China
	-	-	<i>A. fumigatus</i> MH773172, <i>Ligusticum wallichii</i> , Dujiangyan [53] city, Suburb of Chengdu, China
	-	-	<i>A. fumigatus</i> SD-406, cultured, deep-sea sediment, East [29] China Sea, China
	-	-	<i>A. fumigatus</i> M580, <i>Colochirus quadrangularis</i> , Co To- [54] Thanh Lan Island, Vietnam
	-	-	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, [38] China
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
	-	-	<i>A. fumigatus</i> M1, <i>Aconitum brevicalcaratum</i> (roots), [48] Kunming, Yunnan, China

	-	-	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), [50] Kunming, Yunnan, China
	-	-	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan [40] Autonomous Prefecture, China
9 α -Hydroxyfumitremorgin C (11)	395	C ₂₂ H ₂₅ N ₃ O ₄	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, [33] China
Demethoxyfumitremorgin C (12)	349	C ₂₁ H ₂₃ N ₃ O ₂	<i>A. fumigatus</i> BM939, cultured, sea sediment sample, mouth [30] of Oi River, Sizuoka prefecture, Japan
	-	-	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng [52] Biosphere Reserve, Jiangsu, China
	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), [45] Maoer Mountain, Guangxi Zhuang Autonomous Region, China
	-	-	<i>A. fumigatus</i> , coastal saline soil, Wudi, Shandong, China [46]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
12 α -Hydroxy-13-oxofumitremorgin C (13)	409	C ₂₂ H ₂₃ N ₃ O ₅	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
12 β -Hydroxy-13-oxofumitremorgin C (14)	409	C ₂₂ H ₂₃ N ₃ O ₅	<i>A. fumigatus</i> VDL36, <i>Vaccinium dunalianum</i> (leaves), [55] Wuding, Yunnan, China
rel-(8 <i>S</i> ,19 <i>S</i>)-19,20-Dihydro-9,19,20-trihydroxy-8-methoxy-9-epi-fumitremorgin C (15)	459	C ₂₃ H ₂₉ N ₃ O ₇	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China [43]
rel-(8 <i>R</i>)-9-Hydroxy-8-methoxy-18-epi-fumitremorgin C (16)	425	C ₂₃ H ₂₇ N ₃ O ₅	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China [43]
rel-(8 <i>S</i>)-19,20-Dihydro-9,20-dihydroxy-8-methoxy-9,18-di-epi-fumitremorgin C (17)	443	C ₂₃ H ₂₉ N ₃ O ₆	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China [43]
Secofumitremorgin C (18)	363	C ₂₁ H ₂₁ N ₃ O ₃	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, [51] China
Fumitremorgin D (19)	737	C ₄₁ H ₄₃ N ₃ O ₁₀	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, [44] Shanxi, China
Secofumitremorgin D (20)	363	C ₂₁ H ₂₁ N ₃ O ₃	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, [51] China
Tryprostatin A (21)	381	C ₂₂ H ₂₇ N ₃ O ₃	<i>A. fumigatus</i> BM939, cultured, sea sediment sample, mouth [30] of Oi River, Sizuoka prefecture, Japan
	-	-	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine [32] holothurian), Lingshan Island, Qingdao, China.
	-	-	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng [52] Biosphere Reserve, Jiangsu, China
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, [34] Meliaceae), Yangling, Shaanxi province, China
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), China [37]
	-	-	<i>A. fumigatus</i> , coastal saline soil, Wudi, Shandong, China [46]
18-Oxotryprostatin A (22)	395	C ₂₂ H ₂₅ N ₃ O ₄	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China [43]
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), China [37]
Fumitryprostatin A (23)	479	C ₂₇ H ₃₃ N ₃ O ₅	<i>A. fumigatus</i> , Wuhan, China [56]
Cyclotryprostatin A (24)	411	C ₂₂ H ₂₅ N ₃ O ₅	<i>A. fumigatus</i> BM939, sea sediment, mouth of Oi River, [57] Sizuoka prefecture, Japan
	-	-	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine [32] holothurian), Lingshan Island, Qingdao, China
	-	-	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, [33] China

	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, [34] Meliaceae), Yangling, Shaanxi province, China
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), China [37]
	-	-	<i>A. fumigatus</i> , coastal saline soil, Wudi, Shandong, China [46]
	-	-	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, [38] China
	-	-	<i>A. fumigatus</i> VDL36, <i>Vaccinium dunalianum</i> (leaves), [55] Wuding, Yunnan, China
13-Ethoxycyclotryprostatin A (25)	439	C ₂₄ H ₂₉ N ₃ O ₅	<i>A. fumigatus</i> VDL36, <i>Vaccinium dunalianum</i> (leaves), [55] Wuding, Yunnan, China
13-Dehydroxycyclotryprostatin A (26)	395	C ₂₂ H ₂₅ N ₃ O ₄	<i>A. fumigatus</i> VDL36, <i>Vaccinium dunalianum</i> (leaves), [55] Wuding, Yunnan, China
Tryprostatin B (27)	351	C ₂₁ H ₂₅ N ₃ O ₂	<i>A. fumigatus</i> BM939, cultured, sea sediment sample, mouth [30]] of Oi River, Sizuoka prefecture, Japan
	-	-	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine [32] holothurian), Lingshan Island, Qingdao, China.
	-	-	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng [52] Biosphere Reserve, Jiangsu, China
	-	-	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China [43]
	-	-	<i>A. fumigatus</i> M580, <i>Colochirus quadrangularis</i> , Co To- [54] Thanh Lan Island, Vietnam
	-	-	<i>A. fumigatus</i> KFQG-2/ <i>Alternaria alternata</i> KFZ-32 [58] coculture, <i>Coffea arabica</i> , Baoshan, Yunnan, China
	-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, [51] China
6-Hydroxytryprostatin B (28)	367	C ₂₁ H ₂₅ N ₃ O ₃	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, [33] China
Cyclotryprostatin B (29)	425	C ₂₃ H ₂₇ N ₃ O ₅	<i>A. fumigatus</i> BM939, sea sediment, mouth of Oi River, [57] Sizuoka prefecture, Japan
	-	-	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, [33] China
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, [34] Meliaceae), Yangling, Shaanxi province, China
	-	-	<i>A. fumigatus</i> AR05, <i>Astragalus membranaceus</i> (root), [36] Hengshan Mountains, Shanxi Province, China
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), China [37]
	-	-	<i>A. fumigatus</i> SD-406, cultured, deep-sea sediment, East [29] China Sea, China
	-	-	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, [38] China
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
Prenylcyclotryprostatin B (30)	493	C ₂₈ H ₃₅ N ₃ O ₅	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, [33] China
20-Hydroxycyclotryprostatin B (31)	395	C ₂₂ H ₂₅ N ₃ O ₄	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, [33] China
	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), [45] Maoer Mountain, Guangxi Zhuang Autonomous Region, China
Cyclotryprostatin C (32)	381	C ₂₁ H ₂₃ N ₃ O ₄	<i>A. fumigatus</i> BM939, sea sediment, mouth of Oi River, [57] Sizuoka prefecture, Japan
	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), [45] Maoer Mountain, Guangxi Zhuang Autonomous Region, China

13-Dehydroxycyclotryprostatin C (33)	365	C ₂₁ H ₂₃ N ₃ O ₃	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), [45] Maoer Mountain, Guangxi Zhuang Autonomous Region, China
	-	-	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, [38] China
Cyclotryprostatin D (34)	379	C ₂₁ H ₂₁ N ₃ O ₄	<i>A. fumigatus</i> BM939, sea sediment, mouth of Oi River, [57] Sizuoka prefecture, Japan
Asperfumigatin (35)	511	C ₂₇ H ₃₃ N ₃ O ₇	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), [45] Maoer Mountain, Guangxi Zhuang Autonomous Region, China
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
	-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, [51] China
	-	-	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan [40] Autonomous Prefecture, China
12β,13β-hydroxy-asperfumigatin (36)	511	C ₂₇ H ₃₃ N ₃ O ₇	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
	-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, [51] China
Verruculogen (37)	511	C ₂₇ H ₃₃ N ₃ O ₇	<i>A. fumigatus</i> strains (AFu-3, AFu-4, AFu-5, and AFu-6), [59] molded silage, USA
	-	-	<i>A. fumigatus</i> BM939, cultured, sea sediment sample, mouth [30] of Oi River, Sizuoka prefecture, Japan
	-	-	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine [32] holothurian), Lingshan Island, Qingdao, China.
	-	-	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng [52] Biosphere Reserve, Jiangsu, China
	-	-	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, [33] China
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, [34] Meliaceae), Yangling, Shaanxi province, China
	-	-	<i>A. fumigatus</i> MBC-F1-10/ <i>Streptomyces bullii</i> co-culture, [35] hyper-arid Atacama Desert soil, Chile
	-	-	<i>A. fumigatus</i> AR05, <i>Astragalus membranaceus</i> (root), [36] Hengshan Mountains, Shanxi Province, China
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), China [37] [38]
	-	-	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, [44] Shanxi, China
	-	-	<i>A. fumigatus</i> MH773172, <i>Ligusticum wallichii</i> , Dujiangyan [53] city, Suburb of Chengdu, China
	-	-	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, [38] China
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
13-Oxoverruculogen (38)	509	C ₂₇ H ₃₁ N ₃ O ₇	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine [32] holothurian), Lingshan Island, Qingdao, China
	-	-	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, [44] Shanxi, China
Verruculogen TR-2 (39)	429	C ₂₂ H ₂₇ N ₃ O ₆	<i>A. fumigatus</i> strains (AFu-3, AFu-4, AFu-5, and AFu-6), [59] molded silage, USA
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, [34] Meliaceae), Yangling, Shaanxi province, China
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), China [37]

	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), [45] Maoer Mountain, Guangxi Zhuang Autonomous Region, China
	-	-	<i>A. fumigatus</i> M1, <i>Aconitum brevicalcaratum</i> (roots), [48] Kunming, Yunnan, China
	-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, [51] China
	-	-	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan [40] Autonomous Prefecture, China
12 β -Hydroxyverruculogen TR-2 (40)	429	C ₂₂ H ₂₇ N ₃ O ₆	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, [34] Meliaceae), Yangling, Shaanxi province, China
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), China [37]
	-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, [51] China
12 β -Hydroxy-13 α -methoxyverruculogen TR-2 (41)	443	C ₂₃ H ₂₉ N ₃ O ₆	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, [34] Meliaceae), Yangling, Shaanxi province, China
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), China [37]
Spirotryprostatin A (42)	395	C ₂₂ H ₂₅ N ₃ O ₄	<i>A. fumigatus</i> BM939, sea sediment, mouth of Oi River, [60] Sizuoka prefecture, Japan
	-	-	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine [32] holothurian), Lingshan Island, Qingdao, China
	-	-	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng [52] Biosphere Reserve, Jiangsu, China
	-	-	<i>A. fumigatus</i> KMM 4631, <i>Sinularia</i> sp. (superficial [61] mycobiota, soft coral), Kunachir island, Kuril Islands, Russia
	-	-	<i>A. fumigatus</i> MBC-F1-10/ <i>Streptomyces bullii</i> co-culture, [35] hyper-arid Atacama Desert soil, Chile
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), China [37]
	-	-	<i>A. fumigatus</i> KR019681, <i>Edgeworthia chrysantha</i> , coastal [62] region of Hangzhou Bay, Hangzhou, China
	-	-	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, [38] China
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
	-	-	<i>A. fumigatus</i> culture, <i>Scutellaria formosana</i> (flowers), [63] Hainan, Yunnan, Guangdong, southern China
Spiro [5H,10H-dipyrrolo[1,2-a:1',2'-d]pyrazine-2-(3H),2'-[2H]indole]-3',5,10(1'H)-trione (43)	427	C ₂₂ H ₂₅ N ₃ O ₆	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine [32] holothurian), Lingshan Island, Qingdao, China
	-	-	<i>A. fumigatus</i> KMM 4631, <i>Sinularia</i> sp. (superficial [61] mycobiota, soft coral), Kunachir island, Kuril Islands, Russia
	-	-	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China [64]
	-	-	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan [40] Autonomous Prefecture, China
(3S,8S,9S,18S)-8,9-Dihydroxyspirotryprostatin A (44)	427	C ₂₂ H ₂₅ N ₃ O ₆	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China [43]
Spirotryprostatin B (45)	363	C ₂₁ H ₂₁ N ₃ O ₃	<i>A. fumigatus</i> BM939, sea sediment, mouth of Oi River, [60] Sizuoka prefecture, Japan
	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), [45] Maoer Mountain, Guangxi Zhuang Autonomous Region, China

-	-	<i>A. fumigatus</i> culture, <i>Scutellaria formosana</i> (flowers), [63] Hainan, Yunnan, Guangdong, southern China
6-Methoxyspirotryprostatin B 393 = Spirotryprostatin G (46)	C ₂₂ H ₂₃ N ₃ O ₄	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng [52] Biosphere Reserve, Jiangsu, China
-	-	<i>A. fumigatus</i> KMM 4631, <i>Simularia</i> sp. (superficial [61] mycobiota, soft coral), Kunachir island, Kuril Islands, Russia
-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, [34] Meliaceae), Yangling, Shaanxi province, China
-	-	<i>A. fumigatus</i> MBC-F1-10/ <i>Streptomyces bullii</i> co-culture, [35] hyper-arid Atacama Desert soil, Chile
-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), China [37]
-	-	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China [64]
-	-	<i>A. fumigatus</i> KR019681, <i>Edgeworthia chrysantha</i> , coastal [62] region of Hangzhou Bay, Hangzhou, China
-	-	<i>A. fumigatus</i> M580, <i>Colochirus quadrangularis</i> , Co To- [54] Thanh Lan Island, Vietnam
-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
Spirotryprostatin C (47)	495 C ₂₇ H ₃₃ N ₃ O ₆	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine [32] holothurian), Lingshan Island, Qingdao, China
-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, [51] China
Spirotryprostatin D (48)	511 C ₂₇ H ₃₃ N ₃ O ₇	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine [32] holothurian), Lingshan Island, Qingdao, China
Spirotryprostatin E (49)	527 C ₂₇ H ₃₃ N ₃ O ₈	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine [32] holothurian), Lingshan Island, Qingdao, China
Spirotryprostatin K (50)	383 C ₂₁ H ₂₅ N ₃ O ₄	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China [64]
Indole-quinazoline alkaloids		
Tryptoquivaline =	546 C ₂₉ H ₃₀ N ₄ O ₇	<i>A. fumigatus</i> 0011, Cultured, Japan [65- 67]
Tryptoquivaline C (FTC) (51)		
Nortryptoquivaline =	532 C ₂₈ H ₂₈ N ₄ O ₇	<i>A. fumigatus</i> 0011, Cultured, Japan [66,67]
Tryptoquivaline D (FTD) (52)		
Deoxytryptoquivaline (53)	530 C ₂₉ H ₃₀ N ₄ O ₆	<i>A. fumigatus</i> 0011, Cultured, Japan [66]
Deoxynortryptoquivaline (54)	516 C ₂₈ H ₂₈ N ₄ O ₆	<i>A. fumigatus</i> 0011, Cultured, Japan [66]
Nortryptoquivalone (55)	488 C ₂₆ H ₂₄ N ₄ O ₅	<i>A. fumigatus</i> 0011, Cultured, Japan [66]
Deoxynortryptoquivalone (56)	472 C ₂₆ H ₂₄ N ₄ O ₅	<i>A. fumigatus</i> 0011, Cultured, Japan [66]
Tryptoquivaline E (FTE) (57)	418 C ₂₂ H ₁₈ N ₄ O ₅	<i>A. fumigatus</i> 0011, Cultured, Japan [65]
Tryptoquivaline F (FTF) =	402 C ₂₂ H ₁₈ N ₄ O ₄	<i>A. fumigatus</i> 0011, Cultured, Japan [65]
Fumitremorgin F (58)		
-	-	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng [52] Biosphere Reserve, Jiangsu, China
-	-	<i>A. fumigatus</i> NRRL 35693, cultured, France [13]
-	-	<i>A. fumigatus</i> KMM 4631, <i>Simularia</i> sp. (superficial [61] mycobiota, soft coral), Kunachir island, Kuril Islands, Russia
2-epi-Tryptoquivaline F (59)	402 C ₂₂ H ₁₈ N ₄ O ₄	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
-	-	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), [50] Kunming, Yunnan, China
Tryptoquivaline G (FTG) (60)	432 C ₂₃ H ₂₀ N ₄ O ₅	<i>A. fumigatus</i> 0011, Cultured, Japan [65]

Tryptoquivaline H (FTH) (61)	418	C ₂₂ H ₁₈ N ₄ O ₅	<i>A. fumigatus</i> 0011, Cultured, Japan	[65]
Tryptoquivaline I (FTI) (62)	502	C ₂₇ H ₂₆ N ₄ O ₆	<i>A. fumigatus</i> 0011, Cultured, Japan	[66]
	-	-	<i>A. fumigatus</i> IFM 54246, soil, Brazil	[68]
Tryptoquivaline J (FTJ) (63)	402	C ₂₂ H ₁₈ N ₄ O ₄	<i>A. fumigatus</i> 0011, Cultured, Japan	[66]
	-	-	<i>A. fumigatus</i> KMM 4631, cultured, marine isolate, Russia	[31]
	-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora mucronata</i> (flower), Dong Zhai Gang-Mangrove Garden, on Hainan Island, China	[47]
Tryptoquivaline L (FTL) (64)	432	C ₂₃ H ₂₀ N ₄ O ₅	<i>A. fumigatus</i> IFM 4482, cultured, Japan	[67]
Tryptoquivaline M (FTM) (65)	532	C ₂₈ H ₂₈ N ₄ O ₇	<i>A. fumigatus</i> IFM 4482, cultured, Japan	[67]
Tryptoquivaline N (FTN) (66)	472	C ₂₆ H ₂₄ N ₄ O ₅	<i>A. fumigatus</i> IFM 4482, cultured, Japan	[67]
Tryptoquivaline O (FTO) (67)	402	C ₂₂ H ₁₈ N ₄ O ₄	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
Fumiquinazoline A (68)	445	C ₂₄ H ₂₃ N ₅ O ₄	<i>A. fumigatus</i> , <i>Pseudolabrus japonicus</i> (GIT of the saltwater fish), Osaka, Japan	[69]
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
	-	-	<i>A. fumigatus</i> MH773172, <i>Ligusticum wallichii</i> , Dujiangyan city, Suburb of Chengdu, China	[53]
3-Hydroxyfumiquinazoline A (69)	461	C ₂₄ H ₂₃ N ₅ O ₅	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
Fumiquinazoline B (70)	445	C ₂₄ H ₂₃ N ₅ O ₄	<i>A. fumigatus</i> , <i>Pseudolabrus japonicus</i> (GIT of the saltwater fish), Osaka, Japan	[69]
	-	-	<i>A. fumigatus</i> , coastal saline soil, Wudi, Shandong, China	[46]
Fumiquinazoline C (71)	443	C ₂₄ H ₂₁ N ₅ O ₄	<i>A. fumigatus</i> , <i>Pseudolabrus japonicus</i> (GIT of the saltwater fish), Osaka, Japan	[69]
	-	-	<i>A. fumigatus</i> KMM 4631, cultured, marine isolate, Russia	[31]
	-	-	<i>A. fumigatus</i> NRRL 35693, cultured, France	[13]
	-	-	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, Shanxi, China	[44]
	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), Maoer Mountain, Guangxi Zhuang Autonomous Region, China	[45]
	-	-	<i>A. fumigatus</i> , coastal saline soil, Wudi, Shandong, China	[46]
	-	-	<i>A. fumigatus</i> SCSIO 41012, deep-sea sediments, Indian Ocean	[70]
	-	-	<i>A. fumigatus</i> SD-406, cultured, deep-sea sediment, East China Sea, China	[29]
	-	-	<i>A. fumigatus</i> M580, <i>Colochirus quadrangularis</i> , Co To-Thanh Lan Island, Vietnam	[54]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
	-	-	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan Autonomous Prefecture, China	[40]
29-Hydroxyfumiquinazoline C (72)	459	C ₂₄ H ₂₁ N ₅ O ₅	<i>A. fumigatus</i> SD-406, cultured, deep-sea sediment, East China Sea, China	[29]
Fumiquinazoline D (73)	443	C ₂₄ H ₂₁ N ₅ O ₄	<i>A. fumigatus</i> KMM 4631, cultured, marine isolate, Russia	[31]
	-	-	<i>A. fumigatus</i> R7 culture, <i>Ipomoea batatas</i> (leaves), Egypt	[71]
	-	-	<i>A. fumigatus</i> M580, <i>Colochirus quadrangularis</i> , Co To-Thanh Lan Island, Vietnam	[54]
	-	-	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan Autonomous Prefecture, China	[40]

Fumiquinazoline F (74)	358	C ₂₁ H ₁₈ N ₄ O ₂	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, [34] Meliaceae), Yangling, Shaanxi province, China
	-	-	<i>A. fumigatus</i> R7 culture, <i>Ipomoea batatas</i> (leaves), Egypt [71]
Fumiquinazoline G (75)	358	C ₂₁ H ₁₈ N ₄ O ₂	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, [34] Meliaceae), Yangling, Shaanxi province, China
	-	-	<i>A. fumigatus</i> SCSIO 41012, deep-sea sediments, Indian [70] Ocean
Fumiquinazoline J (76)	342	C ₂₀ H ₁₄ N ₄ O ₂	<i>A. fumigatus</i> AR05, <i>Astragalus membranaceus</i> (root), [36] Hengshan Mountains, Shanxi Province, China
	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), [45] Maoer Mountain, Guangxi Zhuang Autonomous Region, China
	-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora stylosa</i> (roots), South [72] China Sea, China
	-	-	<i>A. fumigatus</i> M580, <i>Colochirus quadrangularis</i> , Co To- [54] Thanh Lan Island, Vietnam
	-	-	<i>A. fumigatus</i> SAI12, <i>Sonneratia apetala</i> (leaves), [73] Dongzhaigang, Hainan, China
	-	-	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), [50] Kunming, Yunnan, China
	-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, [51] China
	-	-	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan [40] Autonomous Prefecture, China
Fumiquinazoline K (77)	356	C ₂₁ H ₁₆ N ₄ O ₂	<i>A. fumigatus</i> KMM 4631, <i>Sinularia</i> sp. (superficial [61] mycobiota, soft coral), Kunachir island, Kuril Islands, Russia
Fumigatoside B (79)	623	C ₃₀ H ₃₃ N ₅ O ₁₀	<i>A. fumigatus</i> , <i>Nemopilema nomurai</i> (jellyfish), Southern [74] coast of Korea
	-	-	<i>A. fumigatus</i> SAI12, <i>Sonneratia apetala</i> (leaves), [73] Dongzhaigang, Hainan, China
Fumiquinazolinine (78)	434	C ₂₃ H ₂₂ N ₄ O ₅	<i>A. fumigatus</i> VDL36, <i>Vaccinium dunalianum</i> (leaves), [55] Wuding, Yunnan, China
Fumigatoside C (80)	607	C ₃₀ H ₃₃ N ₅ O ₉	<i>A. fumigatus</i> , <i>Nemopilema nomurai</i> (jellyfish), Southern [74] coast of Korea
Fumigatoside D (81)	607	C ₃₀ H ₃₃ N ₅ O ₉	<i>A. fumigatus</i> , <i>Nemopilema nomurai</i> (jellyfish), Southern [74] coast of Korea
Fumigatoside E (82)	372	C ₂₁ H ₁₆ N ₄ O ₃	<i>A. fumigatus</i> SCSIO 41012, deep-sea sediments, Indian [70] Ocean
Fumigatoside F (83)	420	C ₂₂ H ₂₀ N ₄ O ₅	<i>A. fumigatus</i> SCSIO 41012, deep-sea sediments, Indian [70] Ocean
Fumigatoside G (84)	605	C ₃₀ H ₃₁ N ₅ O ₉	<i>A. fumigatus</i> SAI12, <i>Sonneratia apetala</i> (leaves), [73] Dongzhaigang, Hainan, China
Fumigatoside H (85)	582	C ₂₈ H ₃₀ N ₄ O ₁₀	<i>A. fumigatus</i> SAI12, <i>Sonneratia apetala</i> (leaves), [73] Dongzhaigang, Hainan, China
(+)-Alantrypinone (86)	372	C ₂₁ H ₁₆ N ₄ O ₃	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
Oxoglyantrypine (87)	358	C ₂₀ H ₁₄ N ₄ O ₃	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
Chaetominine (88)	402	C ₂₂ H ₁₈ N ₄ O ₄	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), [45] Maoer Mountain, Guangxi Zhuang Autonomous Region, China
	-	-	<i>A. fumigatus</i> MF029, <i>Hymeniacidon perleve</i> (sponge), [75] Bohai Sea, China
	-	-	<i>A. fumigatus</i> , <i>Albizia lucidior</i> (leaf), Zoological Garden, [76] Giza, Egypt

-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora mucronata</i> (flower), [47] Dong Zhai Gang-Mangrove Garden, on Hainan Island, China
-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
-	-	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), [50] Kunming, Yunnan, China
-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, [51] China
-	-	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan [40] Autonomous Prefecture, China
-	-	<i>A. fumigatus</i> VDL36, <i>Vaccinium dunalianum</i> (leaves), [55] Wuding, Yunnan, China
Chaetominine A (89)	418	C ₂₂ H ₁₈ N ₄ O ₅ <i>A. fumigatus</i> MF029, <i>Hymeniacidon perleve</i> (sponge), [75] Bohai Sea, China
Isochaetominine = 11- <i>epi</i> - chaetominine (90)	402	C ₂₂ H ₁₈ N ₄ O ₄ <i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), [45] Maoer Mountain, Guangxi Zhuang Autonomous Region, China
-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
Methyl (<i>S</i>)-{2-((3 <i>R</i> ,4 <i>aS</i> ,9 <i>aR</i>)-434 hydroxy-2-oxo-3- (4-oxoquinazolin-3(4 <i>H</i>)-yl)- 2,3,4,4 <i>a</i> ,9,9 <i>a</i> -hexahydro-1 <i>H</i> - pyrido[2,3- <i>b</i>]indol-1- yl)propanoate} (91)	-	C ₂₃ H ₂₂ N ₄ O ₅ <i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, [51] China

Table S2: List of diketopiperazine alkaloids isolated from *Aspergillus fumigatus*.

Compound Name	M. Wt.	Mol. Formula	Strain, Host, and Location	Ref.
3 β -Hydroxy cyclo-L-tryptophyl-L-proline (92)	299	C ₁₆ H ₁₇ N ₃ O ₃	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine holothurian), Lingshan Island, Qingdao, China	[32]
Cyclo-L-tryptophyl-L-proline = Brevianamide F (93)	283	C ₁₆ H ₁₇ N ₃ O ₂	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine holothurian), Lingshan Island, Qingdao, China	[32]
-	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
-	-	-	<i>A. fumigatus</i> MBC-F1-10/ <i>Streptomyces bullii</i> co-culture, hyper-arid Atacama Desert soil, Chile	[35]
-	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), China	[37]
-	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), Maoer Mountain, Guangxi Zhuang Autonomous Region, China	[45]
-	-	-	<i>A. fumigatus</i> M580, <i>Colochirus quadrangularis</i> , Co To-Thanh Lan Island, Vietnam	[54]
-	-	-	<i>A. fumigatus</i> M1, <i>Aconitum brevicalcaratum</i> (roots), Kunming, Yunnan, China	[48]
-	-	-	<i>A. fumigatus</i> KFQG-2/ <i>Alternaria alternata</i> KFZ-32 coculture, <i>Coffea arabica</i> , Baoshan, Yunnan, China	[58]
-	-	-	<i>A. fumigatus</i> culture, <i>Scutellaria formosana</i> (flowers), Hainan, Yunnan, Guangdong, southern China	[63]
N-Prenyl-cyclo-L-tryptophyl-L-proline (94)	351	C ₂₁ H ₂₅ N ₃ O ₂	<i>A. fumigatus</i> Fres., cultured, <i>Stichopus japonicus</i> (marine holothurian), Lingshan Island, Qingdao, China	[32]
-	-	-	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China	[43]
Cyclo (L)-Pro-(L)-Phe (95)	244	C ₁₄ H ₁₆ N ₂ O ₂	<i>A. fumigatus</i> , soil, Pantanal-MS, Brazil	[81]
-	-	-	<i>A. fumigatus</i> M580, <i>Colochirus quadrangularis</i> , Co To-Thanh Lan Island, Vietnam	[54]
Cyclo-(Gly-Phe) (96)	204	C ₁₁ H ₁₂ N ₂ O ₂	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
Cyclo (L)-4-OH-Pro-(L)-Phe (97)	260	C ₁₄ H ₁₆ N ₂ O ₃	<i>A. fumigatus</i> , soil, Pantanal-MS, Brazil	[81]
-	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
-	-	-	<i>A. fumigatus</i> culture, <i>Scutellaria formosana</i> (flowers), Hainan, Yunnan, Guangdong, southern China	[63]
Cyclo-(L-Tyr-L-Pro) (98)	260	C ₁₄ H ₁₆ N ₂ O ₃	<i>A. fumigatus</i> culture, <i>Scutellaria formosana</i> (flowers), Hainan, Yunnan, Guangdong, southern China	[63]
(3 <i>R</i> ,6 <i>S</i>)-3-Benzyl-6-(hydroxymethyl)-3-	264	C ₁₃ H ₁₆ N ₂ O ₄	<i>A. fumigatus</i> , marine sediments, Jiaozhou Bay, China	[79]

methoxypiperazine-2,5-dione (99)				
(3 <i>S</i> ,6 <i>S</i>)-3-Benzyl-6-(hydroxymethyl)-3-methoxypiperazine-2,5-dione (100)	264	C ₁₃ H ₁₆ N ₂ O ₄	<i>A. fumigatus</i> , marine sediments, Jiaozhou Bay, China	[79]
methoxypiperazine-2,5-dione (100)				
(<i>R</i>)-6-Benzylidene-3-hydroxy-3-(hydroxymethyl)piperazine-2,5-dione (101)	248	C ₁₂ H ₁₂ N ₂ O ₄	<i>A. fumigatus</i> , marine sediments, Jiaozhou Bay, China	[79]
Cyclo-(L-phenyl-L-valine) (102)	246	C ₁₄ H ₁₈ N ₂ O ₂	<i>A. fumigatus</i> culture, <i>Scutellaria formosana</i> (flowers), Hainan, Yunnan, Guangdong, southern China	[63]
Cyclo(L-phenyl-L-isoleucine) (103)	260	C ₁₅ H ₂₀ N ₂ O ₂	<i>A. fumigatus</i> culture, <i>Scutellaria formosana</i> (flowers), Hainan, Yunnan, Guangdong, southern China	[63]
Cyclo (L)-Pro-(L)-Leu (104)	210	C ₁₁ H ₁₈ N ₂ O ₂	<i>A. fumigatus</i> , soil, Pantanal-MS, Brazil	[81]
-	-	-	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China	[43]
-	-	-	<i>A. fumigatus</i> M580, <i>Colochirus quadrangularis</i> , Co To-Thanh Lan Island, Vietnam	[54]
Cyclo-(L-Val-L-Leu) (105)	212	C ₁₁ H ₂₀ N ₂ O ₂	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), China	[80]
Cyclo (L)-Pro- (L)-Pro (106)	194	C ₁₀ H ₁₄ N ₂ O ₂	<i>A. fumigatus</i> , soil, Pantanal-MS, Brazil	[81]
Cyclo-(Pro- <i>trans</i> -4-OH-Pro) (107)	210	C ₁₀ H ₁₄ N ₂ O ₃	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
Cyclo-(Ser- <i>trans</i> -4-OH-Pro) (108)	200	C ₈ H ₁₂ N ₂ O ₄	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
Cyclo-(Ala- <i>trans</i> -4-OH-Pro) (109)	184	C ₈ H ₁₂ N ₂ O ₃	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
Cyclo (L)-Pro-(L)-Val (110)	196	C ₁₀ H ₁₆ N ₂ O ₂	<i>A. fumigatus</i> , soil, Pantanal-MS, Brazil	[81]
Cyclo (L)-4-OH-Pro-(L)-Leu (111)	226	C ₁₁ H ₁₈ N ₂ O ₃	<i>A. fumigatus</i> , soil, Pantanal-MS, Brazil	[81]
-	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
-	-	-	<i>A. fumigatus</i> culture, <i>Scutellaria formosana</i> (flowers), Hainan, Yunnan, Guangdong, southern China	[63]
Cyclo (L-isoleucyl-L-prolyl) (112)	210	C ₁₁ H ₁₈ N ₂ O ₂	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China	[43]
Cyclo-(Pro-Ser) (113)	184	C ₈ H ₁₂ N ₂ O ₃	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
Cyclo-(Pro-Ala) (114)	168	C ₈ H ₁₂ N ₂ O ₂	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
Cyclo-(D-Pro-L-Ala) (115)	168	C ₈ H ₁₂ N ₂ O ₂	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
-	-	-	<i>A. fumigatus</i> , <i>Scutellaria formosana</i> (flowers), Hainan, Yunnan, Guangdong, southern China	[63]

Cyclo (L)-Pro-Gly (116)	154	C ₇ H ₁₀ N ₂ O ₂	<i>A. fumigatus</i> , soil, Pantanal-MS, Brazil	[81]
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
	-	-	<i>A. fumigatus</i> , <i>Scutellaria formosana</i> (flowers), Hainan, Yunnan, Guangdong, southern China	[63]
Cyclo (L-Ala-L-Leu) (117)	184	C ₉ H ₁₆ N ₂ O ₂	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China	[42]
Cyclo (L-Ala-L-Ile) (118)	184	C ₉ H ₁₆ N ₂ O ₂	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China	[42]
Cyclo-(L-Ala-L-Val) (119)	170	C ₈ H ₁₄ N ₂ O ₂	<i>A. fumigatus</i> , marine sediments, Jiaozhou Bay, China	[79]
Cyclo-(Gly-Ala) (120)	128	C ₅ H ₈ N ₂ O ₂	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]

Table S3: List of clavine-type ergot and spiro-heterocyclic γ -lactam alkaloids isolated from *Aspergillus fumigatus*.

Compound Name/chemical class	M. Wt.	Mol. Formula	Strain, Host, and Location	Ref.
Clavine-type ergot alkaloids				
Fumigaclavine A (121)	298	C ₁₈ H ₂₂ N ₂ O ₂	<i>A. fumigatus</i> strains (AFu-3, AFu-4, AFu-5, and AFu-6), molded silage, USA	[59]
	-	-	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, Shanxi, China	[44]
	-	-	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), Kunming, Yunnan, China	[50]
Secofumigaclavine A (122)	398	C ₂₃ H ₃₀ N ₂ O ₄	<i>A. fumigatus</i> CY018, human feces, China	[82]
Fumigaclavine B (123)	256	C ₁₆ H ₂₀ NO ₂	<i>A. fumigatus</i> strains (AFu-3, AFu-4, AFu-5, and AFu-6), molded silage, USA	[59]
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
Secofumigaclavine B (124)	398	C ₂₃ H ₃₀ N ₂ O ₄	<i>A. fumigatus</i> CY018, human feces, China	[82]
Fumigaclavine C (125)	366	C ₂₃ H ₃₀ N ₂ O ₂	<i>A. fumigatus</i> strains (AFu-3, AFu-4, AFu-5, and AFu-6), molded silage, USA	[59]
	-	-	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China	[42]
	-	-	<i>A. fumigatus</i> , surface of marine green algae, Seosaeng-myeon, Ulsan, Korea	[83]
	-	-	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, Shanxi, China	[44]
	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), Maoer Mountain, Guangxi Zhuang Autonomous Region, China	[45]
	-	-	<i>A. fumigatus</i> SZW01, sediment, Shenzhen, Guangdong, China	[84]
	-	-	<i>A. fumigatus</i> , <i>Ceriops decandra</i> (leaves), Kolagachia, Sundarbans, Bangladesh	[85]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
	-	-	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), Kunming, Yunnan, China	[50]
	-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, China	[51]
	-	-	<i>A. fumigatus</i> VDL36, <i>Vaccinium dunalianum</i> (leaves), Wuding, Yunnan, China	[55]
Secofumigaclavine C (126)	384	C ₂₂ H ₂₈ N ₂ O ₄	<i>A. fumigatus</i> CY018, human feces, China	[82]
9-Deacetylfumigaclavine C (127)	324	C ₂₁ H ₂₈ N ₂ O	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China	[52]
	-	-	<i>A. fumigatus</i> CY018, human feces, China	[82]
9-Deacetoxymumigaclavine C (128)	308	C ₂₁ H ₂₈ N ₂	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China	[52]
Fumigaclavine D (129)	352	C ₂₂ H ₂₈ N ₂ O ₂	<i>A. fumigatus</i> CY018, human feces, China	[82]
Secofumigaclavine D (130)	384	C ₂₂ H ₂₈ N ₂ O ₄	<i>A. fumigatus</i> CY018, human feces, China	[82]
Fumigaclavine E (131)	324	C ₂₁ H ₂₈ N ₂ O	<i>A. fumigatus</i> CY018, human feces, China	[82]
Secofumigaclavine E (132)	320	C ₂₀ H ₂₀ N ₂ O ₂	<i>A. fumigatus</i> CY018, human feces, China	[82]
Fumigaclavine G (133)	366	C ₂₃ H ₃₀ N ₂ O ₂	<i>A. fumigatus</i> HQD24, <i>Rhizophora stylosa</i> (roots), South China Sea, China	[72]
Fumigaclavine I (134)	382	C ₂₃ H ₃₀ N ₂ O ₃	<i>A. fumigatus</i> VDL36, <i>Vaccinium dunalianum</i> (leaves), Wuding, Yunnan, China	[55]

Fumigaclavine J (135)	382	C ₂₃ H ₃₀ N ₂ O ₃	<i>A. fumigatus</i> VDL36, <i>Vaccinium dunalianum</i> [55] (leaves), Wuding, Yunnan, China
2-(3,3-Dimethylprop-1-ene)- costaclavine (136)	308	C ₂₁ H ₂₈ N ₂	<i>A. fumigatus</i> ZTF001, <i>Zoanthus</i> sp., (zoanthid), [86] Ayamaru Cape, Amami Island, Kagoshima Prefecture, Japan
2-(3,3-Dimethylprop-1-ene)- epicostaclavine (137)	308	C ₂₁ H ₂₈ N ₂	<i>A. fumigatus</i> ZTF001, <i>Zoanthus</i> sp., (zoanthid), [86] Ayamaru Cape, Amami Island, Kagoshima Prefecture, Japan
Costaclavine (138)	240	C ₁₆ H ₂₀ N ₂	<i>A. fumigatus</i> ZTF001, <i>Zoanthus</i> sp., (zoanthid), [86] Ayamaru Cape, Amami Island, Kagoshima Prefecture, Japan
Fumigaclavine A (139)	298	C ₁₈ H ₂₂ N ₂ O ₂	<i>A. fumigatus</i> ZTF001, <i>Zoanthus</i> sp., (zoanthid), [86] Ayamaru Cape, Amami Island, Kagoshima Prefecture, Japan
Fumigaclavine C (140)	366	C ₂₃ H ₃₀ N ₂ O ₂	<i>A. fumigatus</i> ZTF001, <i>Zoanthus</i> sp., (zoanthid), [86] Ayamaru Cape, Amami Island, Kagoshima Prefecture, Japan
Spiro-heterocyclic γ -lactam alkaloids			
Pseurotin A (141)	431	C ₂₂ H ₂₅ NO ₈	<i>A. fumigatus</i> HA-57-88, soil, Sardinia [87]
	-	-	<i>A. fumigatus</i> 030402d, marine sediment, Vanuatu [88]
	-	-	<i>A. fumigatus</i> , soil, Kitakyushu, Japan [89]
	-	-	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), [52] Yancheng Biosphere Reserve, Jiangsu, China
	-	-	<i>A. fumigatus</i> , soil, Rajshahi University, [90] Bangladesh
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, [34] Meliaceae), Yangling, Shaanxi province, China
	-	-	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), [44] Honghegu, Shanxi, China
	-	-	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), [64] South of China
	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese [45] liverwort), Maoer Mountain, Guangxi Zhuang Autonomous Region, China
	-	-	<i>A. fumigatus</i> , coastal saline soil, Wudi, Shandong, [46] China
	-	-	<i>A. fumigatus</i> MR2012, sediment, Red Sea, [91] Hurghada, Egypt
	-	-	<i>A. fumigatus</i> KR019681, <i>Edgeworthia</i> [62] <i>chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China
	-	-	<i>A. fumigatus</i> CUGBMF170049, sea sediment, [92] Bohai Sea, China
	-	-	<i>A. fumigatus</i> MH773172, <i>Ligusticum wallichii</i> , [53] Dujiangyan city, Suburb of Chengdu, China
	-	-	<i>A. fumigatus</i> SD-406, cultured, deep-sea [29] sediment, East China Sea, China
	-	-	<i>A. fumigatus</i> , <i>Albizia lucidior</i> (leaf), Zoological [76] Garden, Giza, Egypt
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
	-	-	<i>A. fumigatus</i> M1, <i>Aconitum brevicaratum</i> [48] (roots), Kunming, Yunnan, China
	-	-	<i>A. fumigatus</i> VDL36, <i>Vaccinium dunalianum</i> [55] (leaves), Wuding, Yunnan, China

10R-15-Methylpseurotin A (143)	445	C ₂₃ H ₂₇ NO ₈	<i>A. fumigatus</i> SD-406, cultured, deep-sea sediment, East China Sea, China [29]
8-O-Demethylpseurotin A (142)	417	C ₂₁ H ₂₃ NO ₈	<i>A. fumigatus</i> HA-57-88, soil, Sardinia [87]
	-	-	<i>A. fumigatus</i> 030402d, marine sediment, Vanuatu [88]
11-O-Methylpseurotin A (144)	445	C ₂₃ H ₂₅ NO ₈	<i>A. fumigatus</i> MBC-F1-10/ <i>Streptomyces bullii</i> co-culture, hyper-arid Atacama Desert soil, Chile [35]
	-	-	<i>A. fumigatus</i> MR2012, sediment, Red Sea, Hurghada, Egypt [91]
	-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, China [51]
14- Norpseurotin A (145)	417	C ₂₁ H ₂₃ NO ₈	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China [52]
	-	-	<i>A. fumigatus</i> SD-406, cultured, deep-sea sediment, East China Sea, China [29]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
11-Dehydroxypseurotin A (146)	415	C ₂₂ H ₂₅ NO ₇	<i>A. fumigatus</i> VDL36, <i>Vaccinium dunalianum</i> (leaves), Wuding, Yunnan, China [55]
Pseurotin A1 (147)	431	C ₂₂ H ₂₅ NO ₈	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China [34]
11-O-Methylpseurotin A2 (148)	445	C ₂₃ H ₂₅ NO ₈	<i>A. fumigatus</i> MBC-F1-10/ <i>Streptomyces bullii</i> co-culture, hyper-arid Atacama Desert soil, Chile [35]
Pseurotin A2 (149)	431	C ₂₂ H ₂₅ NO ₈	<i>A. fumigatus</i> MR2012, sediment, Red Sea, Hurghada, Egypt [91]
Pseurotin F1 (150)	417	C ₂₁ H ₂₃ NO ₈	<i>A. fumigatus</i> MR2012, sediment, Red Sea, Hurghada, Egypt [91]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
	-	-	<i>A. fumigatus</i> KFQG-2/ <i>Alternaria alternata</i> KFZ-32 coculture, <i>Coffea arabica</i> , Baoshan, Yunnan, China [58]
Pseurotin F2 (151)	417	C ₂₁ H ₂₃ NO ₈	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
Pseurotin D (152)	431	C ₂₂ H ₂₅ NO ₈	<i>A. fumigatus</i> MR2012, sediment, Red Sea, Hurghada, Egypt [91]
	-	-	<i>A. fumigatus</i> UIAU-3F, soil, River Oyun in Kwara State, Nigeria [49]
Synerazol (153)	413	C ₂₂ H ₂₃ NO ₇	<i>A. fumigatus</i> SANK 10588, soil, Prachuap Khiri Khan, Thailand [93]
Azaspirofuran A (154)	411	C ₂₂ H ₂₁ NO ₇	<i>A. fumigatus</i> MR2012, sediment, Red Sea, Hurghada, Egypt [91]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
	-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, China [51]
Azaspirofuran B (155)	397	C ₂₁ H ₁₉ NO ₇	<i>A. fumigatus</i> MR2012, sediment, Red Sea, Hurghada, Egypt [91]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
	-	-	<i>A. fumigatus</i> , <i>Ceriops decandra</i> (leaves), Kolagachia, Sundarbans, Bangladesh [85]
	-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, China [51]
Cephalimysin A (156)	399	C ₂₂ H ₂₅ NO ₆	<i>A. fumigatus</i> OUPS-T106B-5, <i>Mugil cephalus</i> (marine fish), Japan [94]
	-	-	<i>A. fumigatus</i> MH773172, <i>Ligusticum wallichii</i> , Dujiangyan city, Suburb of Chengdu, China [53]
Cephalimysin M (157)	417	C ₂₂ H ₂₇ NO ₇	<i>A. fumigatus</i> CUGBMF170049, sea sediment, Bohai Sea, China [92]

Cephalimysin N (158)	427	C ₂₂ H ₂₁ NO ₈	<i>A. fumigatus</i> CUGBMF170049, sea sediment, [92] Bohai Sea, China
FD-838 (159)	411	C ₂₂ H ₂₁ NO ₇	<i>A. fumigatus</i> CUGBMF170049, sea sediment, [92] Bohai Sea, China

Table S4: List of indoline, indole, amide-containing, thiodiketopiperazine, and other alkaloids isolated from *Aspergillus fumigatus*.

Compound Name/chemical class	M. Wt.	Mol. Formula	Strain, Host, and Location	Ref.
Indoline alkaloids				
Chaetoglobosin A (160)	528	C ₃₂ H ₃₆ N ₂ O ₅	<i>A. fumigatus</i> AF3-093A, <i>Fucus vesiculosus</i> (brown alga), Canada	[97]
chaetoglobosin B (161)	528	C ₃₂ H ₃₆ N ₂ O ₅	<i>A. fumigatus</i> AF3-093A, <i>Fucus vesiculosus</i> (brown alga), Canada	[97]
Fumindoline A (162)	382	C ₂₂ H ₂₆ N ₂ O ₄	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
Fumindoline Ba,b (163)	394	C ₂₃ H ₂₆ N ₂ O ₄	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
Fumindoline Ca,b (164)	408	C ₂₄ H ₂₈ N ₂ O ₄	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
3-Acetonilidene-7-prenylindolin-2-one (165)	257	C ₁₆ H ₁₉ NO ₂	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
Indole alkaloids				
Asperfumigatone A (166)	255	C ₁₆ H ₁₇ NO ₂	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
Asperfumigatone B (167)	269	C ₁₇ H ₁₉ NO ₂	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
Asperfumigatone C (168)	285	C ₁₇ H ₁₉ NO ₃	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
Asperfumigatone D (169)	257	C ₁₆ H ₁₉ NO ₂	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
Asperfumigatone E (170)	271	C ₁₇ H ₂₁ NO ₂	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
Asperfumigatone F (171)	268	C ₁₆ H ₁₆ N ₂ O ₂	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
Asperfumigatone G (172)	298	C ₁₇ H ₁₈ N ₂ O ₃	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
9-Methoxyolivacine (173)	276	C ₁₈ H ₁₆ N ₂ O	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
1-Acetyl-β-carboline (174)	210	C ₁₃ H ₁₀ N ₂ O	<i>A. fumigatus</i> HQD24, <i>Rhizophora mucronata</i> (flower), Dong Zhai Gang-Mangrove Garden, on Hainan Island, China	[47]
1-(6-Methoxy-5-prenyl-1 <i>H</i> -indol-3-yl)-propan-2-one (175)	271	C ₁₇ H ₂₁ NO ₂	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
Dilemmaone B (176)	215	C ₁₃ H ₁₃ NO ₂	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
Bruceolline H (177)	229	C ₁₃ H ₁₁ NO ₃	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
Psammocindole B (178)	282	C ₁₈ H ₂₂ N ₂ O	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
N-β-acetyltryptamine (179)	230	C ₁₄ H ₁₈ N ₂ O	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), South of China	[64]
3-Prenyl-5-(3-keto-but-1-enyl)-indole (180)	253	C ₁₇ H ₁₉ NO	<i>A. fumigatus</i> 0338, <i>Nicotiana tabacum</i> (stem), Tengchong Prefecture, Yunnan, China	[98]
6-Methoxyindole-3-carboxylic acid <i>O</i> -β-D-glucopyranosyl ester (181)	353	C ₁₆ H ₁₉ NO ₈	<i>A. fumigatus</i> M580, <i>Colochirus quadrangularis</i> , Co To-Thanh Lan Island, Vietnam	[54]

Amide-containing alkaloids					
N,N' - ((1Z,3Z)-1,4-Bis(4-methoxyphenyl)buta-1,3-diene-2,3-diyl)diformamide (183)	352	C ₂₀ H ₂₀ N ₂ O ₄	<i>A. fumigatus</i> / <i>Streptomyces peucetius</i> 29050 co-culture, USA	[99]	
N,N' -((1Z,3Z)-1,4-Bis(4-hydroxyphenyl)buta-1,3-diene-2,3-diyl)diformamide (182)	324	C ₁₈ H ₁₆ N ₂ O ₄	<i>A. fumigatus</i> / <i>Streptomyces peucetius</i> 29050 co-culture, USA	[99]	
N,N' -((1Z,3Z)-1-(4-Hydroxyphenyl)-4-(4-methoxyphenyl)buta-1,3-diene-2,3-diyl)diformamide (184)	338	C ₁₉ H ₁₈ N ₂ O ₄	<i>A. fumigatus</i> / <i>Streptomyces peucetius</i> 29050 co-culture, USA	[99]	
Fumiformamide (185)	418	C ₁₉ H ₁₈ N ₂ O ₇ S	<i>A. fumigatus</i> / <i>Streptomyces peucetius</i> 29050 co-culture, USA	[99]	
N-Formyl-4-hydroxyphenyl-acetamide (186)	179	C ₉ H ₉ N ₃ O ₃	<i>A. fumigatus</i> , soil, McGillivray Trail, Southeast Manitoba, Canada	[100]	
N-Acetyltyramine (187)	179	C ₁₀ H ₁₃ N ₂ O ₂	<i>A. fumigatus</i> , marine sediments, Jiaozhou Bay, China	[79]	
N-(2-Phenylethyl)acetamide (188)	163	C ₁₀ H ₁₃ NO	<i>A. fumigatus</i> D/ <i>Fusarium oxysporum</i> R1 co-culture, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[101]	
Pyrophen (189)	287	C ₁₆ H ₁₇ NO ₄	<i>A. fumigatus</i> KARSV04, Indonesia	[102]	
Sphingofungin D (190)	431	C ₂₂ H ₄₁ NO ₇	<i>A. fumigatus</i> MF029, <i>Hymeniacidon perleve</i> (sponge), Bohai Sea, China	[75]	
Sphingofungin I (191)*	399	C ₂₁ H ₃₇ NO ₆	<i>A. fumigatus</i> MF029, <i>Hymeniacidon perleve</i> (sponge), Bohai Sea, China	[75]	
Sphingofungin I (192)*	395	C ₂₂ H ₃₇ NO ₅	<i>A. fumigatus</i> SD-406, cultured, deep-sea sediment, East China Sea, China	[29]	
11-Methyl-11-hydroxyldodecanoic acid amide (193)	229	C ₁₃ H ₂₇ NO ₂	<i>A. fumigatus</i> JRJ111048, <i>Acrostichum speciosum</i> (leaves), mangrove forest of Dongzhaigang, Haikou, Hainan, China	[103]	
(S, E)-Methyl-2-(2,4-dimethylhex-2-enamido)acetate (194)	213	C ₁₁ H ₁₉ NO ₃	<i>A. fumigatus</i> D/ <i>Fusarium oxysporum</i> R1 co-culture, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[101]	
2,5-Dioxocyclopentylamino-7-oxohepta-1,3,5-trienyl- 2,5-dihydroxy-3-chlorophenyl-2,4,6-trimethyldeca-2,4-dienamide (195)	568	C ₃₁ H ₃₇ ClN ₂ O ₆	<i>A. fumigatus</i> MF-1, Marine soil, Bay of Bengal, Kakinada, India	[104]	
Cerebroside A (196)	725	C ₄₁ H ₇₅ NO ₉	<i>A. fumigatus</i> R7 culture, <i>Ipomoea batatas</i> (leaves), Egypt	[71]	
Thiodiketopiperazine alkaloids					
Gliotoxin (197)	326	C ₁₃ H ₁₄ N ₂ O ₄ S ₂	<i>A. fumigatus</i> , marine sediments, Jiaozhou Bay, China	[105]	
	-	-	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, China	[33]	
	-	-	<i>A. fumigatus</i> KR019681, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[62]	
	-	-	<i>A. fumigatus</i> MH773172, <i>Ligusticum wallichii</i> , Dujiangyan city, Suburb of Chengdu, China	[53]	
Spirogliotoxin (198)	328	C ₁₃ H ₁₆ N ₂ O ₄ S ₂	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, China	[33]	
Gliotoxin analogue (199)	280	C ₁₃ H ₁₆ N ₂ O ₃ S	<i>A. fumigatus</i> , marine sediments, Jiaozhou Bay, China	[105]	
Didehydrobisdethiobis (methylthio) gliotoxin (200)	354	C ₁₅ H ₁₈ N ₂ O ₄ S ₂	<i>A. fumigatus</i> , marine sediments, Jiaozhou Bay, China	[105]	

	-	-	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, China [33]
	-	-	<i>A. fumigatus</i> MH773172, <i>Ligusticum wallichii</i> , Dujiangyan city, Suburb of Chengdu, China [53]
Bisdethiobis(methylthio)gliotoxin (201)	356	C ₁₅ H ₂₀ N ₂ O ₄ S ₂	<i>A. fumigatus</i> KMM 4631, cultured, marine isolate, Russia [31]
	-	-	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China [52]
	-	-	<i>A. fumigatus</i> , marine sediments, Jiaozhou Bay, China [105]
	-	-	<i>A. fumigatus</i> YK-7, sea mud, intertidal zone, Yingkou, China [33]
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China [34]
	-	-	<i>A. fumigatus</i> R7 culture, <i>Ipomoea batatas</i> (leaves), Egypt [71]
	-	-	<i>A. fumigatus</i> KR019681, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China [62]
	-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora stylosa</i> (roots), South China Sea, China [72]
	-	-	<i>A. fumigatus</i> M580, <i>Colochirus quadrangularis</i> , Co To-Thanh Lan Island, Vietnam [54]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific [39]
Gliotoxin G (202)	390	C ₁₃ H ₁₄ N ₂ O ₄ S ₄	<i>A. fumigatus</i> F15, Australia [106]
Bis-N-norgliovictin (203)	326	C ₁₄ H ₁₈ N ₂ O ₃ S ₂	<i>A. fumigatus</i> , marine sediments, Jiaozhou Bay, China [105]
Glionitrin A (204)	353	C ₁₃ H ₁₁ N ₃ O ₅ S ₂	<i>A. fumigatus</i> KMC-901/ <i>Sphingomonas</i> sp. KMK-001 coculture, contaminated acid mine, Youngdong abandoned coal mine, Gangneung, South Korea [107]
Glionitrin B (205)	383	C ₁₅ H ₁₇ N ₃ O ₅ S ₂	<i>A. fumigatus</i> KMC-901/ <i>Sphingomonas</i> sp. KMK-001 coculture, contaminated acid mine, Youngdong abandoned coal mine, Gangneung, South Korea [108]
Emestrin A (206)	598	C ₂₇ H ₂₂ N ₂ O ₁₀ S ₂	<i>A. fumigatus</i> MBC-F1-10/ <i>Streptomyces bullii</i> co-culture, hyper-arid Atacama Desert soil, Chile [35]
Emestrin B (207)	630	C ₂₇ H ₂₂ N ₂ O ₁₀ S ₃	<i>A. fumigatus</i> MBC-F1-10/ <i>Streptomyces bullii</i> co-culture, hyper-arid Atacama Desert soil, Chile [35]
Alternarosin A (208)	492	C ₂₂ H ₂₄ N ₂ O ₇ S ₂	<i>A. fumigatus</i> SZW01, sediment, Shenzhen, Guangdong, China [84]
Other alkaloids			
epi-Aszonalenin A (209)	415	C ₂₅ H ₂₅ N ₃ O ₃	<i>A. fumigatus</i> SCSIO 41012, deep-sea sediments, Indian Ocean [70]
LL-S490β (210)	415	C ₂₅ H ₂₅ N ₃ O ₃	<i>A. fumigatus</i> culture, soil, Kitakyushu, Japan [89]
Epothilone B (211)	507	C ₂₇ H ₄₁ NO ₆ S	<i>A. fumigatus</i> , <i>Trigonella foenum-graecum</i> (leaves), Zagazig, Alsharqia province, Egypt [109]
2-Hydroxymethyl-4-methoxy-7-methylbenzo[d]thiazole-5,6-diol (212)	241	C ₁₀ H ₁₁ NO ₄ S	<i>A. fumigatus</i> GZWMJZ-152, deep cave soil, Fanjing Mountain of Guizhou, China [110]
4-Methoxy-7-methylbenzo[d]thiazole-5,6-diol (213)	211	C ₉ H ₉ NO ₃ S	<i>A. fumigatus</i> GZWMJZ-152, deep cave soil, Fanjing Mountain of Guizhou, China [110]
Asperfumoid (214)	359	C ₁₈ H ₁₇ NO ₇	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China [42]

Nicotinic acid (215)	123	C ₆ H ₅ NO ₂	<i>A. fumigatus</i> HQD24, <i>Rhizophora mucronata</i> (flower), Dong Zhai Gang-Mangrove Garden on Hainan Island, China	[47]
5-Butyl-2-pyridine carboxylic acid (216)	179	C ₁₀ H ₁₃ NO ₂	<i>A. fumigatus</i> nHF-01 culture, India	[111]
Pyrazoline-3-one trimer (217)	363	C ₂₁ H ₂₁ N ₃ O ₅	<i>A. fumigatus</i> R7, <i>Ipomoea batatas</i> (leaves), Egypt	[71]
Lumichrome (218)	242	C ₁₂ H ₁₀ N ₄ O ₂	<i>A. fumigatus</i> , <i>Erythrophloeum fordii</i> (stem), south China	[64]
2'-Deoxy-thymidine (219)	242	C ₁₀ H ₁₄ N ₂ O ₅	<i>A. fumigatus</i> R7, <i>Ipomoea batatas</i> (leaves), Egypt	[71]
Uracil (220)	112	C ₄ H ₄ N ₂ O ₂	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark), Yangling, Shaanxi province, China	[34]
(1 <i>S</i> ,2 <i>R</i>)-2-phenyl-N-propylcyclopropanamine (221)	175	C ₁₂ H ₁₇ N	<i>A. fumigatus</i> M1, <i>Aconitum brevicalcaratum</i> (roots), Kunming, Yunnan, China	[48]
BU-4704 (222)	382	C ₁₉ H ₁₄ N ₂ O ₅ S	<i>A. fumigatus</i> / <i>Streptomyces peucetius</i> 29050 co-culture, USA	[99]

*Same names with different structures

Table S5: List of peptides isolated from *Aspergillus fumigatus*.

Compound Name	M. Wt.	Mol. Formula	Strain, Host, and Location	Ref.
Micropeptin (223)	1061	C ₅₂ H ₇₅ N ₁₁ O ₁₃	<i>A. fumigatus</i> 3T-EGY, soil, Mansoura, Egypt	[115]
Avellanin A (224)	561	C ₃₁ H ₃₉ N ₅ O ₅	<i>A. fumigatus</i> GXIMD 03099, <i>Acanthus ilicifolius</i> , Guangxi Shankou Mangrove Nature Reserve, China	[114]
Avellanin B (225)	547	C ₃₀ H ₃₇ N ₅ O ₅	<i>A. fumigatus</i> GXIMD 03099, <i>Acanthus ilicifolius</i> , Guangxi Shankou Mangrove Nature Reserve, China	[114]
Avellanin D (226)	547	C ₃₀ H ₃₇ N ₅ O ₅	<i>A. fumigatus</i> GXIMD 03099, <i>Acanthus ilicifolius</i> , Guangxi Shankou Mangrove Nature Reserve, China	[114]
Avellanin E (227)	575	C ₃₂ H ₄₁ N ₅ O ₅	<i>A. fumigatus</i> GXIMD 03099, <i>Acanthus ilicifolius</i> , Guangxi Shankou Mangrove Nature Reserve, China	[114]
Avellanin F (228)	533	C ₂₉ H ₃₅ N ₅ O ₅	<i>A. fumigatus</i> GXIMD 03099, <i>Acanthus ilicifolius</i> , Guangxi Shankou Mangrove Nature Reserve, China	[114]
Avellanin G (229)	533	C ₂₉ H ₃₅ N ₅ O ₅	<i>A. fumigatus</i> GXIMD 03099, <i>Acanthus ilicifolius</i> , Guangxi Shankou Mangrove Nature Reserve, China	[114]
PF1171B (230)	527	C ₂₈ H ₄₁ N ₅ O ₅	<i>A. fumigatus</i> GXIMD 03099, <i>Acanthus ilicifolius</i> , Guangxi Shankou Mangrove Nature Reserve, China	[114]
PF1171E (231)	561	C ₃₁ H ₃₉ N ₅ O ₅	<i>A. fumigatus</i> GXIMD 03099, <i>Acanthus ilicifolius</i> , Guangxi Shankou Mangrove Nature Reserve, China	[114]

Table S6: List of terpenoids isolated from *Aspergillus fumigatus*.

Compound Name/chemical class	M. Wt.	Mol. Formula	Strain, Host, and Location	Ref.
Pyridino- α -pyrone sesquiterpenes				
Pyripyropene A (232)	583	C ₃₁ H ₃₇ NO ₁₀	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), Maoer Mountain, Guangxi Zhuang Autonomous Region, China	[45]
	-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora mucronata</i> (flower), Dong Zhai Gang-Mangrove Garden, on Hainan Island, China	[47]
	-	-	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, China	[38]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
	-	-	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), Kunming, Yunnan, China	[50]
	-	-	<i>A. fumigatus</i> GXIMD00544, Zhulin solar saltern, Beihai, China	[51]
	-	-	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan Autonomous Prefecture, China	[40]
1,11-Dideacetyl-pyripyropene A (233)	499	C ₂₇ H ₃₃ NO ₈	<i>A. fumigatus</i> HQD24, <i>Rhizophora mucronata</i> (flower), Dong Zhai Gang-Mangrove Garden, on Hainan Island, China	[47]
7-Deacetylpyripyropene A (234)	541	C ₂₉ H ₃₅ NO ₉	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan Autonomous Prefecture, China	[40]
Pyripyropene B (235)	597	C ₃₂ H ₃₉ NO ₁₀	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene C (236)	597	C ₃₂ H ₃₉ NO ₁₀	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene D (237)	597	C ₃₂ H ₃₉ NO ₁₀	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene E (238)	451	C ₂₇ H ₃₃ NO ₅	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
	-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora mucronata</i> (flower), Dong Zhai Gang-Mangrove Garden, Hainan Island, China	[47]
Pyripyropene F (239)	465	C ₂₈ H ₃₅ NO ₅	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene G (240)	467	C ₂₇ H ₃₃ NO ₆	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene H (241)	481	C ₂₈ H ₃₅ NO ₆	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene I (242)	625	C ₃₄ H ₄₃ NO ₁₀	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene J (243)	611	C ₃₃ H ₄₁ NO ₁₀	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene K (244)	611	C ₃₃ H ₄₁ NO ₁₀	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene L (245)	611	C ₃₃ H ₄₁ NO ₁₀	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene M (246)	581	C ₃₂ H ₃₉ NO ₉	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]

Pyripyropene N (247)	553	C ₃₁ H ₃₉ NO ₈	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene O (248)	509	C ₂₉ H ₃₅ NO ₇	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene P (249)	523	C ₃₀ H ₃₇ NO ₇	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene Q (250)	539	C ₃₀ H ₃₇ NO ₈	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
Pyripyropene R (251)	523	C ₃₀ H ₃₇ NO ₇	<i>A. fumigatus</i> FO-1289-2501, soil, Jingugaien, Sinjuku-Ku, Tokyo	[116]
GERI-BP001 A (252)	453	C ₂₇ H ₃₅ NO ₅	<i>A. fumigatus</i> F37, soil, Mountain Dukyou, Cheonbuk, Korea	[122]
GERI-BP001 B (253)	451	C ₂₈ H ₃₇ NO ₄	<i>A. fumigatus</i> F37, soil, Mountain Dukyou, Cheonbuk, Korea	[122,123]
GERI-BP001 M (254)	437	C ₂₇ H ₃₅ NO ₄	<i>A. fumigatus</i> F37, soil, Mountain Dukyou, Cheonbuk, Korea	[122,123]
Sesquiterpenoids				
Fumagillin (255)	458	C ₂₆ H ₃₄ O ₇	<i>A. fumigatus</i> , cultured, USA	[124]
	-	-	<i>A. fumigatus</i> CANU A151, saline lake sand, Western Australia	[41]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
Fumagiringillin (256)	476	C ₂₆ H ₃₆ O ₈	<i>A. fumigatus</i> CANU A151, saline lake sand, Western Australia	[41]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
Sch 528647 (257)	442	C ₂₆ H ₃₄ O ₆	<i>A. fumigatus</i> , cultured, USA	[124]
RK-95113 (258)	402	C ₂₄ H ₃₄ O ₅	<i>A. fumigatus</i> RK95-113 (JCM 12527, FERM P-19233), soil, Wako, Saitama, Japan	[125]
Fumagillol (259)	282	C ₁₆ H ₂₆ O ₄	<i>A. fumigatus</i> H-3, cultured, Japan	[126]
	-	-	<i>A. fumigatus</i> RK95-113 (JCM 12527, FERM P-19233), soil, Wako, Saitama, Japan	[125]
5-Demethoxyfumagillol (260)	252	C ₁₅ H ₂₄ O ₃	<i>A. fumigatus</i> IMI-069714, cultured, Korea	[127]
Tricho-9-ene-2 α ,3 α ,11 α ,16-tetraol (261)	282	C ₁₅ H ₂₄ O ₅	<i>A. fumigatus</i> R7 culture, <i>Ipomoea batatas</i> (leaves), Egypt	[71]
Aspergiketone (262)	250	C ₁₅ H ₂₂ O ₃	<i>A. fumigatus</i> , coastal saline soil, Wudi, Shandong, China	[46]
Fumagillene A (263)	236	C ₁₅ H ₂₄ O ₂	<i>A. fumigatus</i> MH773172, <i>Ligusticum wallichii</i> , Dujiangyan city, Suburb of Chengdu, China	[53]
Fumagillene B (264)	236	C ₁₅ H ₂₄ O ₂	<i>A. fumigatus</i> MH773172, <i>Ligusticum wallichii</i> , Dujiangyan city, Suburb of Chengdu, China	[53]
Fumigatanol (265)	270	C ₁₅ H ₂₆ O ₄	<i>A. fumigatus</i> M1, <i>Aconitum brevicaratum</i> (roots), Kunming, Yunnan, China	[48]
Xylariterpenoid H (266)	270	C ₁₅ H ₂₆ O ₄	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan Autonomous Prefecture, China	[40]
<i>E</i> - β - <i>trans</i> -5,8,11-trihydroxybergamot-9-ene (267)	252	C ₁₅ H ₂₄ O ₃	<i>A. fumigatus</i> M1, <i>Aconitum brevicaratum</i> (roots), Kunming, Yunnan, China	[48]
Fumiparaphine A (268)	236	C ₁₅ H ₂₄ O ₂	<i>A. fumigatus</i> YXG-12-2/ <i>Paraphaeosphaeria</i> sp. YXG-18 coculture, <i>Ginkgo biloba</i> , Yunnan University, Yunnan, China	[128]
Fumiparaphine B (269)	266	C ₁₆ H ₂₆ O ₃	<i>A. fumigatus</i> YXG-12-2/ <i>Paraphaeosphaeria</i> sp. YXG-18 coculture, <i>Ginkgo biloba</i> , Yunnan University, Yunnan, China	[128]
Fumiparaphine C (270)	266	C ₁₆ H ₂₆ O ₃	<i>A. fumigatus</i> YXG-12-2/ <i>Paraphaeosphaeria</i> sp. YXG-18 coculture, <i>Ginkgo biloba</i> , Yunnan University, Yunnan, China	[128]

Fuminoid A (271)	252	C ₁₅ H ₂₄ O ₃	<i>A. fumigatus</i> , Wuhan, China	[56]
Fumigatonin (272)	562	C ₂₉ H ₃₈ O ₁₁	<i>A. fumigatus</i> IFM4482, cultured, Japan	[129]
Triterpenoids				
Helvolic acid (273)	568	C ₃₃ H ₄₄ O ₈	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China	[42]
	-	-	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
	-	-	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, Shanxi, China	[44]
	-	-	<i>A. fumigatus</i> HNMF0047, unidentified sponge (HNMF00), Wenchang beach, Hainan, China	[130]
	-	-	<i>A. fumigatus</i> SCSIO 41012, deep-sea sediments, Indian Ocean	[70]
	-	-	<i>A. fumigatus</i> CUGBMF170049, sea sediment, Bohai Sea, China	[92]
	-	-	<i>A. fumigatus</i> , <i>Albizia lucidior</i> (leaf), Zoological Garden, Giza, Egypt	[76]
	-	-	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, China	[38]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
	-	-	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), Kunming, Yunnan, China	[50]
	-	-	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan Autonomous Prefecture, China	[40]
Helvolic acid methyl ester (274)	582	C ₃₄ H ₄₆ O ₈	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), Kunming, Yunnan, China	[50]
1,2-Dihydrohelvolic acid (275)	570	C ₃₃ H ₄₆ O ₈	<i>A. fumigatus</i> CUGBMF170049, sea sediment, Bohai Sea, China	[92]
6,16-O-Dideacetylhelvolic acid 21,16-lactone (276)	466	C ₂₉ H ₃₈ O ₅	<i>A. fumigatus</i> HNMF0047, unidentified sponge (HNMF00), Wenchang beach, Hainan, China	[130]
16-O-Deacetylhelvolic acid 21,16-lactone (277)	508	C ₃₁ H ₄₀ O ₆	<i>A. fumigatus</i> HNMF0047, unidentified sponge (HNMF00), Wenchang beach, Hainan, China	[130]
	-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora stylosa</i> (roots), South China Sea, China	[72]
6-O-Propionyl-6,16-O-dideacetylhelvolic acid 21,16-lactone (278)	522	C ₃₂ H ₄₂ O ₆	<i>A. fumigatus</i> HNMF0047, unidentified sponge (HNMF00), Wenchang beach, Hainan, China	[130]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
1,2-Dihydro-6,16-O-dideacetylhelvolic acid 21,16-lactone (279)	468	C ₂₉ H ₄₀ O ₅	<i>A. fumigatus</i> HNMF0047, unidentified sponge (HNMF00), Wenchang beach, Hainan, China	[130]
1,2-Dihydro-16-O-deacetylhelvolic acid 21,16-lactone (280)	510	C ₃₁ H ₄₂ O ₆	<i>A. fumigatus</i> HNMF0047, unidentified sponge (HNMF00), Wenchang beach, Hainan, China	[130]
16-O-Propionyl-16-O-deacetylhelvolic acid (281)	582	C ₃₄ H ₄₆ O ₈	<i>A. fumigatus</i> HNMF0047, unidentified sponge (HNMF00), Wenchang beach, Hainan, China	[130]
	-	-	<i>A. fumigatus</i> CUGBMF170049, sea sediment, Bohai Sea, China	[92]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
6-O-Propionyl-6-O-deacetylhelvolic acid (282)	582	C ₃₄ H ₄₆ O ₈	<i>A. fumigatus</i> HNMF0047, unidentified sponge (HNMF00), Wenchang beach, Hainan, China	[130]
	-	-	<i>A. fumigatus</i> CUGBMF170049, sea sediment, Bohai Sea, China	[92]
Asperfumin A (283)	582	C ₃₄ H ₄₆ O ₈	<i>A. fumigatus</i> HNMF0047, <i>Cleidion brevipetiolatum</i> (root), Mengla Country Yunnan, China	[95]

Asperfumin B (284)	582	C ₃₄ H ₄₆ O ₈	<i>A. fumigatus</i> HNMF0047, <i>Cleidion brevipetiolatum</i> (root), Mengla Country Yunnan, China	[95]
6β,16β-Diacetoxy-25-hydroxy-3,7-dioxo-29-nordammara-1,17(20)-dien-21,24-lactone (285)	584	C ₃₃ H ₄₄ O ₉	<i>A. fumigatus</i> HNMF0047, unidentified sponge (HNMF00), Wenchang beach, Hainan, China	[130]
24- <i>epi</i> -6β,16β-Diacetoxy-25-hydroxy-3,7-dioxo-29-nordammara-1,17(20)-diene-21,24-lactone (286)	584	C ₃₃ H ₄₄ O ₉	<i>A. fumigatus</i> HNMF0047, unidentified sponge (HNMF00), Wenchang beach, Hainan, China	[130]
4,8,10,14-Tetramethyl-6-acetoxy-14-[16-acetoxy-19-(20,21-dimethyl)-18-ene]-phenanthrene-1-ene-3,7-dione (287)	486	C ₂₉ H ₄₂ O ₆	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, Shanxi, China	[44]
Fumihopaside A (288)	652	C ₃₆ H ₆₀ O ₁₀	<i>A. fumigatus</i> CEA17.1, cultured, China	[131]
Fumihopaside B (289)	634	C ₃₆ H ₅₈ O ₉	<i>A. fumigatus</i> CEA17.1, cultured, China	[131]
(S)-2-hydroxy-2-((3 <i>S</i> ,3 <i>aS</i> ,5 <i>aR</i> ,5 <i>bR</i> ,7 <i>aR</i> ,8 <i>S</i> ,9 <i>S</i> ,11 <i>aR</i> ,11 <i>bR</i> ,13 <i>aR</i> ,13 <i>bS</i>)-9-hydroxy-8-(hydroxymethyl)-5 <i>a</i> ,5 <i>b</i> ,8,11 <i>a</i> ,13 <i>b</i> -pentamethylcosahydro-1 <i>H</i> -cyclopenta[<i>a</i>]chrysen-3-yl)propanoic acid (290)	490	C ₃₀ H ₅₀ O ₅	<i>A. fumigatus</i> CEA17.1, cultured, China	[131]
21βH-hopane-3β,22-diol (291)	444	C ₃₀ H ₅₂ O ₂	<i>A. fumigatus</i> CEA17.1, cultured, China	[131]
1,4,23-Trihydroxy-hopane-22,30-diol (292)	490	C ₃₀ H ₅₂ O ₅	<i>A. fumigatus</i> SD-406, cultured, deep-sea sediment, East China Sea, China	[29]

Table S7: List of sterols isolated from *Aspergillus fumigatus*.

Compound Name	M. Wt.	Mol. Formula	Strain, Host, and Location	Ref.
3,7-Diketo-cephalosporin P1 (293)	528	C ₃₁ H ₄₄ O ₇	<i>A. fumigatus</i> SCSIO 41012, deep-sea sediments, Indian Ocean	[70]
22- <i>O</i> -Acetylisocyclocitrinol A (294)	442	C ₂₇ H ₃₈ O ₅	<i>A. fumigatus</i> SCSIO 41012, deep-sea sediments, Indian Ocean	[70]
Ergosterol (295)	396	C ₂₈ H ₄₄ O	<i>A. fumigatus</i> J-4, Japan	[132]
	-	-	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China	[42]
	-	-	<i>A. fumigatus</i> MBC-F1-10/ <i>Streptomyces bullii</i> co-culture, hyper-arid Atacama Desert soil, Chile	[35]
	-	-	<i>A. fumigatus</i> AR05, <i>Astragalus membranaceus</i> (root), Hengshan Mountains, Shanxi Province, China	[36]
	-	-	<i>A. fumigatus</i> , <i>Albizia lucidior</i> (leaf), Zoological Garden, Giza, Egypt	[76]
	-	-	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), Kunming, Yunnan, China	[50]
(3β,22 <i>E</i> ,24 <i>R</i>)-Stigmasta-5,7,22-trien-3-β-ol (296)	410	C ₂₉ H ₄₆ O	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), Kunming, Yunnan, China	[50]

5 α ,8 α -Epidioxy-ergosta-6,22-diene-3 β -ol (297)		C ₂₈ H ₄₄ O ₃	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China	[42]
-	-	-	<i>A. fumigatus</i> AR05, <i>Astragalus membranaceus</i> (root), Hengshan Mountains, Shanxi Province, China	[36]
-	-	-	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, Shanxi, China	[44]
-	-	-	<i>A. fumigatus</i> , <i>Albizia lucidior</i> (leaf), Zoological Garden, Giza, Egypt	[76]
Isofucosterol (298)	412	C ₂₉ H ₄₈ O	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), Kunming, Yunnan, China	[50]
Ergosta- 4,22-diene-3 β -ol (299)	398	C ₂₈ H ₄₆ O	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China	[42]
Cerevisterol (300)	430	C ₂₈ H ₄₆ O ₃	<i>A. fumigatus</i> AR05, <i>Astragalus membranaceus</i> (root), Hengshan Mountains, Shanxi Province, China	[36]
β -Sistosterol linoleate (301)	1074	C ₇₅ H ₁₂₆ O ₃	<i>A. fumigatus</i> M1, <i>Aconitum brevicaratum</i> (roots), Kunming, Yunnan, China	[48]

Table S8: List of quinone, anthraquinone, and anthracenone derivatives isolated from *Aspergillus fumigatus*.

Compound Name/chemical class	M. Wt.	Mol. Formula	Strain, Host, and Location	Ref.
Fumigatin (302)	168	C ₈ H ₈ O ₄	<i>A. fumigatus</i> DH 413, cultured, Osaka, Japan	[135]
Fumigatin quinol (303)	170	C ₈ H ₁₀ O ₄	<i>A. fumigatus</i> DH 413, cultured, Osaka, Japan	[135]
Fumigatin epoxide (304)	184	C ₈ H ₈ O ₅	<i>A. fumigatus</i> DH 413, cultured, Osaka, Japan	[135]
Fumigatin chlorohydrin (305)	220	C ₈ H ₉ ClO ₅	<i>A. fumigatus</i> DH 413, cultured, Osaka, Japan	[136]
Spinulosin (306)	184	C ₈ H ₈ O ₅	<i>A. fumigatus</i> DH 413, cultured, Osaka, Japan	[135]
-	-	-	<i>A. fumigatus</i> , soil, Kitakyushu, Japan	[89]
Spinulosin quinol (307)	186	C ₈ H ₁₀ O ₅	<i>A. fumigatus</i> DH 413, cultured, Osaka, Japan	[136]
Dihydrospinulosin quinol (308)	188	C ₈ H ₁₂ O ₅	<i>A. fumigatus</i> DH 413, cultured, Osaka, Japan	[136]
Spinulosin hydrate (309)	202	C ₈ H ₁₀ O ₆	<i>A. fumigatus</i> DH 413, cultured, Osaka, Japan	[136]
Spinulosin quinol-hydrate (310)	204	C ₈ H ₁₂ O ₆	<i>A. fumigatus</i> DH 413, cultured, Osaka, Japan	[136]
3,4-Dihydroxytoluquinone (311)	154	C ₇ H ₆ O ₄	<i>A. fumigatus</i> DH 413, cultured, Osaka, Japan	[134]
3-Hydroxy-5-methoxy-2-methylbenzoquinone (312)	168	C ₈ H ₈ O ₄	<i>A. fumigatus</i> GZWMJZ-152, deep cave soil, Fanjing Mountain of Guizhou, China	[110]
Fumiquinone A (313)	254	C ₁₂ H ₁₄ O ₆	<i>A. fumigatus</i> , soil, Kitakyushu, Japan	[89]
Fumiquinone B (314)	184	C ₈ H ₈ O ₅	<i>A. fumigatus</i> , soil, Kitakyushu, Japan	[89]
Emodin (315)	270	C ₁₅ H ₁₀ O ₅	<i>A. fumigatus</i> J-4, Japan	[132]

	-	-	<i>A. fumigatus</i> MF029, <i>Hymeniacidon perleve</i> (sponge), Bohai Sea, China	[75]
	-	-	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, China	[38]
1-Methyl emodin (316)	284	C ₁₆ H ₁₂ O ₅	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan Autonomous Prefecture, China	[40]
Emodin 1,6-dimethyl ether (317)	298	C ₁₇ H ₁₄ O ₅	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, Shanxi, China	[44]
Isorhodoptilometrin (318)	314	C ₁₇ H ₁₄ O ₆	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, Shanxi, China	[44]
(+)-2'-S-Isorhodoptilometrin (319)	314	C ₁₇ H ₁₄ O ₆	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
Questin (320)	286	C ₁₅ H ₁₀ O ₆	<i>A. fumigatus</i> NRRL 35693, cultured, France	[13]
	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), Maoer Mountain, Guangxi Zhuang Autonomous Region, China	[45]
	-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora stylosa</i> (roots), South China Sea, China	[72]
	-	-	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, China	[38]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
	-	-	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), Kunming, Yunnan, China	[50]
Fragilin (321)	318	C ₁₆ H ₁₁ ClO ₅	<i>A. fumigatus</i> J-4, Japan	[132]
2-Chloro-1,3,8-trihydroxy-6-methylanthrone (322)	290	C ₁₅ H ₁₁ ClO ₄	<i>A. fumigatus</i> J-4, Japan	[132]
2-Bromo-1,3,8-trihydroxy-6-methylanthrone (323)	333	C ₁₅ H ₁₁ BrO ₄	<i>A. fumigatus</i> J-4, Japan	[132]
2-Chloro-1,3,8-trihydroxy-6-methylanthraquinone (324)	304	C ₁₅ H ₉ ClO ₅	<i>A. fumigatus</i> J-4, Japan	[132]
2-Bromo-1,3,8-trihydroxy-6-methylanthraquinone (325)	347	C ₁₅ H ₉ BrO ₅	<i>A. fumigatus</i> J-4, Japan	[132]
2-Chloro-1,3,8-trihydroxy-6-hydroxymethylanthraquinone (326)	320	C ₁₅ H ₉ ClO ₆	<i>A. fumigatus</i> J-4, Japan	[132]
Physcion (327)	284	C ₁₆ H ₁₂ O ₅	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China	[42]
	-	-	<i>A. fumigatus</i> 3T-EGY, soil, Mansoura, Egypt	[115]
	-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora stylosa</i> (roots), South China Sea, China	[72]
Neosartoricin (328)	484	C ₂₆ H ₂₈ O ₉	<i>A. fumigatus</i> /Neosartorya fischeri coculture, USA	[137]
2,4,5,17-Tetramethoxy pradimicin lactone (329)	542	C ₃₀ H ₂₂ O ₁₀	<i>A. fumigatus</i> 3T-EGY, soil, Mansoura, Egypt	[115]
	-	-	<i>A. fumigatus</i> R7, <i>Ipomoea batatas</i> (leaves), Egypt	[71]
	-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora stylosa</i> (roots), South China Sea, China	[72]
Juglanthraquinone A-5-O-D-rhodosamine- (4'→1'')-2-deoxy-D-glucose (4''→1''')-cinerulose B (330)	753	C ₃₉ H ₄₇ NO ₁₄	<i>A. fumigatus</i> 3T-EGY, soil, Mansoura, Egypt	[115]

Table S9: List of benzophenones and diphenyl ethers isolated from *Aspergillus fumigatus*.

Compound Name/chemical class	M. Wt.	Mol. Formula	Strain, Host, and Location	Ref.
Benzophenones				
Monomethylsulochrin-4-sulphate (331)	426	C ₁₈ H ₁₈ O ₁₀ S	<i>A. fumigatus</i> , <i>Albizia lucidior</i> (leaf), Zoological Garden, Giza, Egypt	[76]
Sulfurasperine A (332)	504	C ₂₃ H ₂₄ N ₂ O ₉ S	<i>A. fumigatus</i> GZWMJZ-152, deep cave soil, Fanjing Mountain of Guizhou, China	[110]
Sulfurasperine B ((±)- 333)	408	C ₁₉ H ₂₀ O ₈ S	<i>A. fumigatus</i> GZWMJZ-152, deep cave soil, Fanjing Mountain of Guizhou, China	[110]
Sulfurasperine C ((±)- 334)	434	C ₂₁ H ₂₂ O ₈ S	<i>A. fumigatus</i> GZWMJZ-152, deep cave soil, Fanjing Mountain of Guizhou, China	[110]
Sulfurasperine D (335)	450	C ₂₁ H ₂₂ O ₉ S	<i>A. fumigatus</i> GZWMJZ-152, deep cave soil, Fanjing Mountain of Guizhou, China	[110]
Sulochrin (336)	332	C ₁₇ H ₁₆ O ₇	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), Maoer Mountain, Guangxi Zhuang Autonomous Region, China	[45]
	-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora stylosa</i> (roots), South China Sea, China	[72]
	-	-	<i>A. fumigatus</i> GZWMJZ-152, deep cave soil, Fanjing Mountain of Guizhou, China	[110]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
Monomethylsulochrin (337)	346	C ₁₈ H ₁₈ O ₇	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China	[42]
	-	-	<i>A. fumigatus</i> NRRL 35693, cultured, France	[13]
	-	-	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, Shanxi, China	[44]
	-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora stylosa</i> (roots), South China Sea, China	[72]
	-	-	<i>A. fumigatus</i> , <i>Albizia lucidior</i> (leaf), Zoological Garden, Giza, Egypt	[76]
	-	-	<i>A. fumigatus</i> GZWMJZ-152, deep cave soil, Fanjing Mountain of Guizhou, China	[110]
	-	-	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, China	[38]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
	-	-	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), Kunming, Yunnan, China	[50]
	-	-	<i>A. fumigatus</i> , <i>Delphinium grandiflorum</i> , Aba Tibetan Autonomous Prefecture, China	[40]
8'-Hydroxymonomethylsulochrin (338)	362	C ₁₈ H ₁₈ O ₈	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), Kunming, Yunnan, China	[50]
5-Hydroxy-2-(2-hydroxy-6-methoxy-4-methylbenzoyl)-3-methoxybenzoic acid (339)	346	C ₁₈ H ₁₈ O ₇	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), Kunming, Yunnan, China	[50]
Asperfumin (340)	376	C ₁₉ H ₂₀ O ₈	<i>A. fumigatus</i> CY018, <i>Cynodon dactylon</i> (leaf), Yancheng Biosphere Reserve, Jiangsu, China	[42]
Rhizoctonic acid (341)	332	C ₁₇ H ₁₆ O ₇	<i>A. fumigatus</i> HQD24, <i>Rhizophora stylosa</i> (roots), South China Sea, China	[72]
2,6'-Dihydroxy-2,4'-dimethoxy-8'-methyl-6-methoxy-acyl-ethyl-diphenylmethanone (342)	360	C ₁₉ H ₂₀ O ₇	<i>A. fumigatus</i> SZW01, sediment, Shenzhen, Guangdong, China	[84]
Penibenzophenone E (343)	332	C ₁₇ H ₁₆ O ₇	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
Diphenyl ethers				

8'-O-Methylasterric acid (344)	362	C ₁₈ H ₁₈ O ₈	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), Maoer Mountain, Guangxi Zhuang Autonomous Region, China	[45]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
Dimethyl 2,3'-dimethylosoate (345)	376	C ₁₉ H ₂₀ O ₈	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
4-Carboxy-5,5'-dihydroxy-3,3'-dimethyl-diphenylether (346)	274	C ₁₅ H ₁₄ O ₅	<i>A. fumigatus</i> DH 413, cultured, Osaka, Japan	[133]

Table S10: List of chromane and isochromane derivatives isolated from *Aspergillus fumigatus*.

Compound Name/chemical class	M. Wt.	Mol. Formula	Strain, Host, and Location	Ref.
Chromane derivatives				
Ruakuric acid (347)	266	C ₁₃ H ₁₄ O ₆	<i>A. fumigatus</i> , a coral lichen, hot, sulfurous springs environment, Craters-of-the-Moon, North Island of New Zealand	[139]
Ruakuric acid methyl ester (348)	280	C ₁₄ H ₁₆ O ₆	<i>A. fumigatus</i> , a coral lichen, hot, sulfurous springs environment, Craters-of-the-Moon, North Island of New Zealand	[139]
3,5-Dihydroxy-7-O- α -rhamnopyranoyl-2H-chromen-2-one (349)	340	C ₁₅ H ₁₆ O ₉	<i>A. fumigatus</i> 3T-EGY, soil, Mansoura, Egypt	[115]
Rubrofusarin B (350)	286	C ₁₆ H ₁₄ O ₅	<i>A. fumigatus</i> KR019681, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[140]
Asperpyrone A (351)	556	C ₃₁ H ₂₄ O ₁₀	<i>A. fumigatus</i> KR019681, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[140]
Asperpyrone D (352)	556	C ₃₁ H ₂₄ O ₁₀	<i>A. fumigatus</i> KR019681, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[140]
Fonsecinone A (353)	570	C ₃₂ H ₂₆ O ₁₀	<i>A. fumigatus</i> KR019681, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[140]
Fonsecinone B (354)	588	C ₃₂ H ₂₈ O ₁₁	<i>A. fumigatus</i> KR019681, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[140]
Fonsecinone D (355)	588	C ₃₂ H ₂₈ O ₁₁	<i>A. fumigatus</i> KR019681, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[140]
Aurasperone A (356)	570	C ₃₂ H ₂₆ O ₁₀	<i>A. fumigatus</i> KR019681, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[140]
Isochromane derivatives				
1-(8-Methoxy-3-methyl-1H-isochromen-6-yl)propan-1-one (357)	232	C ₁₄ H ₁₆ O ₃	<i>A. fumigatus</i> YATAS-22-042, <i>Nicotiana tabacum</i> (leaves), Gengma, Lincang, Yunnan, China	[141]
3-Hydroxy-1-(8-methoxy-3-methyl-1H-isochromen-7-yl)propan-1-one (358)	248	C ₁₄ H ₁₆ O ₄	<i>A. fumigatus</i> YATAS-22-042, <i>Nicotiana tabacum</i> (leaves), Gengma, Lincang, Yunnan, China	[141]

(5-Methoxy-7-methyl-1H-isochromen-3-yl)methanol (359)	206	C ₁₂ H ₁₄ O ₃	<i>A. fumigatus</i> YATAS-22-042, <i>Nicotiana tabacum</i> (leaves), Gengma, Lincang, Yunnan, China [141]
7-Isopropyl-5-methoxy-3-methyl-1H-isochromene (360)	218	C ₁₄ H ₁₈ O ₂	<i>A. fumigatus</i> YATAS-22-042, <i>Nicotiana tabacum</i> (leaves), Gengma, Lincang, Yunnan, China [141]
(7-Isopropyl-5-methoxy-1H-isochromen-3-yl)methanol (361)	234	C ₁₄ H ₁₈ O ₃	<i>A. fumigatus</i> YATAS-22-042, <i>Nicotiana tabacum</i> (leaves), Gengma, Lincang, Yunnan, China [141]
Versicolol B (362)	244	C ₁₆ H ₂₀ O ₂	<i>A. fumigatus</i> YATAS-22-042, <i>Nicotiana tabacum</i> (leaves), Gengma, Lincang, Yunnan, China [141]
Oryzaein D (363)	276	C ₁₆ H ₂₀ O ₄	<i>A. fumigatus</i> YATAS-22-042, <i>Nicotiana tabacum</i> (leaves), Gengma, Lincang, Yunnan, China [141]
6-Hydroxy mellein (364)	194	C ₁₀ H ₁₀ O ₄	<i>A. fumigatus</i> , <i>Bacopa monnieri</i> , Lucknow, India [142]
6,8-dihydroxy-5-methoxy-3-methyl-1H-isochromen-1-one (365)	224	C ₁₀ H ₈ O ₆	<i>A. fumigatus</i> HQD24, <i>Rhizophora stylosa</i> (roots), South China Sea, China [72]
6-Hydroxy-8-methoxy-3-methylisocoumarin (366)	206	C ₁₁ H ₁₀ O ₄	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, China [38]
Fraxetin (367)	208	C ₁₀ H ₈ O ₅	<i>A. fumigatus</i> , <i>Cerriops decandra</i> (leaves), Kolagachia, Sundarbans, Bangladesh [85]
Alternariol 9- <i>O</i> -methyl ether (368)	272	C ₁₅ H ₁₂ O ₅	<i>A. fumigatus</i> KR019681, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China [140]
(-)-Viriditoxin (369)	662	C ₃₄ H ₃₀ O ₁₄	<i>A. fumigatus</i> 1863, soil, Himalaya [143]

Table S11: List of other metabolites isolated from *Aspergillus fumigatus*.

Compound Name/chemical class	M. Wt.	Mol. Formula	Strain, Host, and Location	Ref.
Azaphilone derivatives				
Pinophilin B (370)	402	C ₂₁ H ₂₂ O ₈	<i>A. fumigatus</i> 14–27, <i>Carijoa</i> sp., (gorgonian), South China Sea, China	[144]
<i>epi</i> -Pinophilin B (371)	402	C ₂₁ H ₂₂ O ₈	<i>A. fumigatus</i> 14–27, <i>Carijoa</i> sp., (gorgonian), South China Sea, China	[144]
Pinazaphilone B (372)	416	C ₂₁ H ₂₀ O ₉	<i>A. fumigatus</i> 14–27, <i>Carijoa</i> sp., (gorgonian), South China Sea, China	[144]
Pinophilin E (373)	404	C ₂₁ H ₂₄ O ₈	<i>A. fumigatus</i> 14–27, <i>Carijoa</i> sp., (gorgonian), South China Sea, China	[144]
Anhydrides				
spergide (374)	332	C ₁₈ H ₂₀ O ₆	<i>A. fumigatus</i> JRJ111048, <i>Acrostichum specioum</i> (leaves), mangrove forest of Dongzhaigang, Haikou, Hainan, China,	[103]
Spiculisporic acid B (375)	326	C ₁₇ H ₂₆ O ₆	<i>A. fumigatus</i> JRJ111048, <i>Acrostichum specioum</i> (leaves), mangrove forest of Dongzhaigang, Haikou, Hainan, China,	[103]
<i>seco</i> -Spiculisporic acid B (376)	360	C ₁₈ H ₃₂ O ₇	<i>A. fumigatus</i> JRJ111048, <i>Acrostichum specioum</i> (leaves), mangrove forest of Dongzhaigang, Haikou, Hainan, China,	[103]
Spiculisporic acid C (377)	342	C ₁₈ H ₃₀ O ₆	<i>A. fumigatus</i> JRJ111048, <i>Acrostichum specioum</i> (leaves), mangrove forest of Dongzhaigang, Haikou, Hainan, China,	[103]

Spiculisporic acid (378)	328	C ₁₇ H ₂₈ O ₆	<i>A. fumigatus</i> JRJ111048, <i>Acrostichum speciosum</i> (leaves), mangrove forest of Dongzhaigang, Haikou, Hainan, China,	[103]
Pyranones				
Dehydromevalonic lactone (379)	130	C ₆ H ₁₀ O ₃	<i>A. fumigatus</i> WA7S6, marine sponge, Red Sea, Hurghada, Egypt	[145]
Neovasinin (380)	308	C ₁₇ H ₂₄ O ₅	<i>A. fumigatus</i> D/ <i>Fusarium oxysporum</i> R1 co-culture, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[101]
Cyclohexanones				
Asperfumtone A (381)	186	C ₈ H ₁₀ O ₅	<i>A. fumigatus</i> KFQG-2/ <i>Alternaria alternata</i> KFZ-32 coculture, <i>Coffea arabica</i> , Baoshan, Yunnan, China	[58]
Asperfumtone B (382)	184	C ₈ H ₈ O ₅	<i>A. fumigatus</i> KFQG-2/ <i>Alternaria alternata</i> KFZ-32 coculture, <i>Coffea arabica</i> , Baoshan, Yunnan, China	[58]
Naphthalene derivatives				
4,8-Dihydroxy-1-tetralone (383)	178	C ₁₀ H ₁₀ O ₃	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
	-	-	<i>A. fumigatus</i> , <i>Albizia lucidior</i> (leaf), Zoological Garden, Giza, Egypt	[76]
<i>trans</i> -3,4-Dihydro-3,4,8-trihydroxynaphthalen-1(2H)-one (384)	194	C ₁₀ H ₁₀ O ₄	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
<i>cis</i> -3,4-Dihydro-3,4,8-trihydroxynaphthalen-1(2H)-one (385)	194	C ₁₀ H ₁₀ O ₄	<i>A. fumigatus</i> LN-4, <i>Melia azedarach</i> (stem bark, Meliaceae), Yangling, Shaanxi province, China	[34]
4,6-Dihydroxy, 3,8a-dimethyl-1-oxo-472 5-(3'-oxobutan-2'-yl)-1,4,4a,5,6,8a-hexahydronaphthalen-2-yl-1'',2''-dimethyl-5''-(2'''-methylprop-1'''-enyl)cyclopentanecarboxylate (386)	472	C ₂₈ H ₄₀ O ₆	<i>A. fumigatus</i> , <i>Garcinia griffithii</i> (fruits), Sarasah Bonta, Lembah Arau, Kabupaten Lima Puluh Kota, West Sumatra, Indonesia	[146]
Furan-containing				
Trypacidin (387)	344	C ₁₈ H ₁₆ O ₇	<i>A. fumigatus</i> NRRL 35693, cultured, France	[13]
	-	-	<i>A. fumigatus</i> , <i>Diphylleia sinensis</i> (rhizome), Honghegu, Shanxi, China	[44]
	-	-	<i>A. fumigatus</i> , <i>Heteroscyphus tener</i> (Chinese liverwort), Maoer Mountain, Guangxi Zhuang Autonomous Region, China	[45]
	-	-	<i>A. fumigatus</i> HQD24, <i>Rhizophora stylosa</i> (roots), South China Sea, China	[72]
	-	-	<i>A. fumigatus</i> MF029, <i>Hymeniacidon perleve</i> (sponge), Bohai Sea, China	[75]
	-	-	<i>A. fumigatus</i> H22, seawater, Western Pacific	[39]
	-	-	<i>A. fumigatus</i> WJ-131, <i>Gardenia jasminoides</i> (stem), Kunming, Yunnan, China	[50]
Neovasifuranone B (388)	282	C ₁₆ H ₂₆ O ₄	<i>A. fumigatus</i> D/ <i>Fusarium oxysporum</i> R1 co-culture, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[101]
2-Furoic acid (389)	112	C ₅ H ₄ O ₃	<i>A. fumigatus</i> 1T-2, Yuanye, Shanghai, China	[147]
Aldehyde				
Flavipin (390)	196	C ₉ H ₈ O ₅	<i>A. fumigatus</i> AF3-093A, <i>Fucus vesiculosus</i> (brown alga), Canada	[97]
Phenolics				

2,4-Dihydroxy-3-methylacetophenone (391)	166	C ₉ H ₁₀ O ₃	<i>A. fumigatus</i> IFM 54246, soil, Brazil	[68]
Orcinol (392)	124	C ₇ H ₈ O ₂	<i>A. fumigatus</i> M1, <i>Aconitum brevicalcaratum</i> (roots), Yunnan, China	[48]
Atraric acid (393)	196	C ₁₀ H ₁₂ O ₄	<i>A. fumigatus</i> , soil, McGillivray Trail, Southeast Manitoba, Canada	[100]
Di-(2-Ethylhexyl) phthalate (394)	390	C ₂₄ H ₃₈ O ₄	<i>A. fumigatus</i> 3T-EGY, soil, Mansoura, Egypt	[115]
α-Ethyl glucoside (395)	208	C ₈ H ₁₆ O ₆	<i>A. fumigatus</i> JRJ111048, <i>Acrostichum speciosum</i> (leaves), mangrove forest of Dongzhaigang, Haikou, Hainan, China,	[103]
Fatty acids and related derivatives				
Fumifungin (396)	431	C ₂₂ H ₄₁ NO ₇	<i>A. fumigatus</i> 1863, soil, Himalaya	[143]
Linoleic acid (397)	280	C ₁₈ H ₃₂ O ₂	<i>A. fumigatus</i> R7, <i>Ipomoea batatas</i> (leaves), Egypt	[71]
α-Linolenic acid (398)	278	C ₁₈ H ₃₀ O ₂	<i>A. fumigatus</i> 3T-EGY, soil, Mansoura, Egypt	[115]
	-	-	<i>A. fumigatus</i> D/ <i>Fusarium oxysporum</i> R1 co-culture, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[101]
9-Tetradecynoic acid (399)	242	C ₁₄ H ₂₄ O ₂	<i>A. fumigatus</i> WA7S6, marine sponge, Red Sea, Hurghada, Egypt	[145]
11-Hexadecynoic acid methyl ester (400)	266	C ₁₇ H ₃₀ O ₂	<i>A. fumigatus</i> WA7S6, marine sponge, Red Sea, Hurghada, Egypt	[145]
R(-)-Glycerol monolinoleate (401)	254	C ₂₁ H ₃₈ O ₄	<i>A. fumigatus</i> R7, <i>Ipomoea batatas</i> (leaves), Egypt	[71]
Stearic acid (402)	284	C ₁₈ H ₃₆ O ₂	<i>A. fumigatus</i> 3T-EGY, soil, Mansoura, Egypt	[115]
α-Elaeostearic acid (403)	278	C ₁₈ H ₃₀ O ₂	<i>A. fumigatus</i> D/ <i>Fusarium oxysporum</i> R1 co-culture, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[101]
Palmitoleic acid (404)	254	C ₂₂ H ₄₂ O ₄	<i>A. fumigatus</i> D/ <i>Fusarium oxysporum</i> R1 co-culture, <i>Edgeworthia chrysantha</i> , coastal region of Hangzhou Bay, Hangzhou, China	[101]
10-Methyl-9Z-octadecenoic glyceride (405)	370	C ₁₆ H ₃₀ O ₂	<i>A. fumigatus</i> culture, <i>Crocus sativus</i> (lateral buds), Zhejiang, China	[38]

Table S13. Biological activities of reported metabolites from *Aspergillus fumigatus*.

Compound name	Biological activity	Assay, Organism or Cell Line	Biological Results		Ref.
			Compound	Positive control	
Fumitremorgin B (3)	Antifungal	Broth microdilution/ <i>Botrytis cinerea</i>	6.25 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	6.25 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	6.25 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Colletotrichum gloeosporioides</i>	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>niveum</i>	25.0 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Gibberella saubinetii</i> .	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
Spirotryprostatin G = 6-methoxyspirotryprostatin B (5)	Antifungal	Broth microdilution/ <i>C. albicans</i>	0.39 µg/mL (MIC)	Amphotericin B, 0.39 µg/mL (MIC)	[62]
Derivative A-fumitremorgin B (6)	Cytotoxicity	MTT/HL-60	3.4 µM (IC ₅₀)	VP16, 0.083 µM (IC ₅₀)	[32]
		SRB/A-549	11.0 µM (IC ₅₀)	VP16, 1.40 µM (IC ₅₀)	[32]
		SRB/BEL-7402	7.0 µM (IC ₅₀)	VP16, 1.025 µM (IC ₅₀)	[32]
Derivative A epimer-fumitremorgin B (7)	Cytotoxicity	MTT/HL-60	5.4 µM (IC ₅₀)	VP16, 0.083 µM (IC ₅₀)	[32]
		SRB/A-549	11.60 µM (IC ₅₀)	VP16, 1.40 µM (IC ₅₀)	[32]
		SRB/BEL-7402	10.80 µM (IC ₅₀)	VP16, 1.025 µM (IC ₅₀)	[32]
Fumitremorgin C (8)	Antifungal	Broth microdilution/ <i>T. rubrum</i>	62.5 µg/mL (MIC)	Ketonazole, 31.5 µg/mL (MIC)	[42]
		Broth microdilution/ <i>Botrytis cinerea</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	25.0 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]

		<i>Colletotrichum gloeosporioides</i>			
		Broth microdilution/ <i>Gibberella saubinetii</i> .	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
12 α ,13 α -Dihydroxyfumitremorgin C (10)	Cytotoxicity	MTT/U937	1.8 µM (IC ₅₀)	Doxorubicin HCl, 0.021 µM (IC ₅₀)	[33]
		MTT/PC-3	6.6 µM (IC ₅₀)	Doxorubicin HCl, 0.73 µM (IC ₅₀)	[33]
12 β -Hydroxy-13-oxofumitremorgin C (14)	Antifungal	Broth microdilution/ <i>Fusarium oxysporum</i>	15.62 µg/mL (MIC)	Ketoconazole, 15.62 µg/mL (MIC)	[55]
		Broth microdilution/ <i>Coriolus versicolor</i>	15.62 µg/mL (MIC)	Ketoconazole, 7.80 µg/mL (MIC)	[55]
		Broth microdilution/ <i>Fusarium solani</i>	31.25 µg/mL (MIC)	Ketoconazole, 31.25 µg/mL (MIC)	[55]
		Broth microdilution/ <i>Botrytis cinerea</i>	31.25 µg/mL (MIC)	Ketoconazole, 15.62 µg/mL (MIC)	[55]
		Broth microdilution/ <i>Fusarium graminearum</i>	15.62 µg/mL (MIC)	Ketoconazole, 15.62 µg/mL (MIC)	[55]
13-Ethoxycyclotryprostatin A (25)	Antifungal	Broth microdilution/ <i>Fusarium oxysporum</i>	7.80 µg/mL (MIC)	Ketoconazole, 15.62 µg/mL (MIC)	[55]
		Broth microdilution/ <i>Coriolus versicolor</i>	7.80 µg/mL (MIC)	Ketoconazole, 7.80 µg/mL (MIC)	[55]
		Broth microdilution/ <i>Fusarium solani</i>	15.62 µg/mL (MIC)	Ketoconazole, 31.25 µg/mL (MIC)	[55]
		Broth microdilution/ <i>Botrytis cinerea</i>	15.62 µg/mL (MIC)	Ketoconazole, 15.62 µg/mL (MIC)	[55]
		Broth microdilution/ <i>Fusarium graminearum</i>	31.25 µg/mL (MIC)	Ketoconazole, 15.62 µg/mL (MIC)	[55]
13-Dehydroxycyclotryprostatin A (26)	Antifungal	Broth microdilution/ <i>Fusarium oxysporum</i>	15.62 µg/mL (MIC)	Ketoconazole, 15.62 µg/mL (MIC)	[55]
		Broth microdilution/ <i>Coriolus versicolor</i>	15.62 µg/mL (MIC)	Ketoconazole, 7.80 µg/mL (MIC)	[55]
		Broth microdilution/ <i>Fusarium solani</i>	31.25 µg/mL (MIC)	Ketoconazole, 31.25 µg/mL (MIC)	[55]
		Broth microdilution/ <i>Botrytis cinerea</i>	31.25 µg/mL (MIC)	Ketoconazole, 15.62 µg/mL (MIC)	[55]

		Broth microdilution/ <i>Fusarium graminearum</i>	31.25 µg/mL (MIC)	Ketoconazole, 15.62 µg/mL (MIC)	[55]
Cyclotryprostatin B (29)	Antifungal	Broth microdilution/ <i>Botrytis cinerea</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	25.0 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Colletotrichum gloeosporioides</i>	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium solani</i>	50.0 µg/mL (MIC)	Carbendazim, 25.0 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>niveum</i>	25.0 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	50.0 µg/mL (MIC)	Carbendazim, 25.0 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Gibberella saubinetii</i> .	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
	Antibacterial	Broth microdilution/ <i>Gibberella saubinetii</i> .	1.0 µg/mL (MIC)	Gentamicin, 0.5 µg/mL (MIC)	[36]
		Broth microdilution/ <i>Bacillus subtilis</i>	1.0 µg/mL (MIC)	Gentamicin, 1.0 µg/mL (MIC)	[36]
		Broth microdilution/ <i>Staphylococcus aureus</i>	1.0 µg/mL (MIC)	Gentamicin, 0.5 µg/mL (MIC)	[36]
		Broth microdilution/ <i>Escherichia coli</i>	2.0 µg/mL (MIC)	Gentamicin, 0.5 µg/mL (MIC)	[36]
Verruculogen (37)	Antifungal	Broth microdilution/ <i>Botrytis cinerea</i>	6.25 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	6.25 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/	6.25 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]

		<i>Colletotrichum gloeosporioides</i>			
		Broth microdilution/ <i>Fusarium solani</i>	50.0 µg/mL (MIC)	Carbendazim, 25.0 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>niveum</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	25.0 µg/mL (MIC)	Carbendazim, 25.0 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Gibberella saubinetii</i> .	6.25 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
	Antibacterial	Broth microdilution/ <i>Bacillus subtilis</i>	2.0 µg/mL (MIC)	Gentamicin, 0.5 µg/mL (MIC)	[36]
		Broth microdilution/ <i>Staphylococcus aureus</i>	4.0 µg/mL (MIC)	Gentamicin, 1.0 µg/mL (MIC)	[36]
		Broth microdilution/ <i>Escherichia coli</i>	2.0 µg/mL (MIC)	Gentamicin, 0.5 µg/mL (MIC)	[36]
		Broth microdilution/ <i>Salmonella typhimurium</i>	2.0 µg/mL (MIC)	Gentamicin, 0.5 µg/mL (MIC)	[36]
13-Oxoverruculogen (38)	Cytotoxicity	MTT/HL-60	1.90 µM (IC ₅₀)	VP16, 0.083 µM (IC ₅₀)	[32]
		SRB/A-549	16.9 µM (IC ₅₀)	VP16, 1.40 µM (IC ₅₀)	[32]
		SRB/BEL-7402	25.6 µM (IC ₅₀)	VP16, 1.025 µM (IC ₅₀)	[32]
Verruculogen TR-2 (39)	Antifungal	Broth microdilution/ <i>Botrytis cinerea</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	6.25 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Colletotrichum gloeosporioides</i>	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium solani</i>	25.0 µg/mL (MIC)	Carbendazim, 25.0 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>niveum</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]

		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	25.0 µg/mL (MIC)	Carbendazim, 25.0 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Gibberella saubinetii</i> .	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
12β-Hydroxyverruculogen TR-2 (40)	Antifungal	Broth microdilution/ <i>Botrytis cinerea</i>	25.0 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	25.0 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	25.0 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Colletotrichum gloeosporioides</i>	25.0 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium solani</i>	50.0 µg/mL (MIC)	Carbendazim, 25.0 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>niveum</i>	25.0 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	50.0 µg/mL (MIC)	Carbendazim, 25.0 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Gibberella saubinetii</i> .	25.0 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
12β-Hydroxy-13α-methoxyverruculogen TR-2 (41)	Antifungal	Broth microdilution/ <i>Botrytis cinerea</i>	6.25 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	6.25 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	6.25 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Colletotrichum gloeosporioides</i>	6.25 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium solani</i>	25.0 µg/mL (MIC)	Carbendazim, 25.0 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>niveum</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	25.0 µg/mL (MIC)	Carbendazim, 25.0 µg/mL (MIC)	[34]

		Broth microdilution/ <i>Gibberella saubinetii</i> .	6.25 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
Spirotryprostatin A (42)	Antibacterial	Broth microdilution/ <i>E. coli</i>	0.39 µg/mL (MIC)	Ampicillin, 0.39 µg/mL (MIC)	[62]
		Broth microdilution/ <i>S. aureus</i>	0.39 µg/mL (MIC)	Ampicillin, 0.39 µg/mL (MIC)	[62]
	Antifungal	Broth microdilution/ <i>C. albicans</i>	0.78 µg/mL (MIC)	Amphotericin B, 0.39 µg/mL (MIC)	[62]
Spirotryprostatin E (49)	Cytotoxicity	MTT/MOLT-4	3.1 µM (IC ₅₀)	VP16, 0.003 µM (IC ₅₀)	[32]
		MTT/HL-60	2.3 µM (IC ₅₀)	VP16, 0.083 µM (IC ₅₀)	[32]
		SRB/A-549	3.1 µM (IC ₅₀)	VP16, 1.40 µM (IC ₅₀)	[32]
Tryptoquivaline O (67)	Antifungal	Broth microdilution/ <i>Botrytis cinerea</i>	25.0 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	25.0 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
Fumiquinazoline A (68)	Antifungal	Broth microdilution/ <i>Botrytis cinerea</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Colletotrichum gloeosporioides</i>	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Gibberella saubinetii</i> .	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Botrytis cinerea</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
3-Hydroxyfumiquinazoline A (69)	Antifungal	Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Colletotrichum gloeosporioides</i>	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]

		Broth microdilution/ <i>Gibberella saubinetii</i> .	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
Fumiquinazoline C (71)	Antibacterial	Broth microdilution/ <i>S. aureus</i> (ATCC 16339)	1.565 µg/mL (MIC)	Streptomycin, 6.25 µg/mL (MIC)	[70]
		Broth microdilution/ <i>S. aureus</i> (ATCC 29213)	0.78 µg/mL (MIC)	Streptomycin, 3.125 µg/mL (MIC)	[70]
Fumiquinazoline D (73)	Antifungal	Broth microdilution/ <i>Botrytis cinerea</i>	25.0 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	25.0 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	25.0 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Colletotrichum gloeosporioides</i>	25.0 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Gibberella saubinetii</i> .	25.0 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
Fumiquinazoline F (74)	Antifungal	Broth microdilution/ <i>Botrytis cinerea</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	25.0 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Colletotrichum gloeosporioides</i>	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Gibberella saubinetii</i> .	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
Fumiquinazoline G (75)	Antifungal	Broth microdilution/ <i>Botrytis cinerea</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	25.0 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Colletotrichum gloeosporioides</i>	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]

		Broth microdilution/ <i>Gibberella saubinetii</i> .	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
	Antibacterial	Broth microdilution/ <i>A. baumannii</i> (ATCC 15122)	6.25 µg/mL (MIC)	Streptomycin, 12.5 µg/mL (MIC)	[70]
		Broth microdilution/ <i>S. aureus</i> (ATCC 16339)	12.5 µg/mL (MIC)	Streptomycin, 6.25 µg/mL (MIC)	[70]
Fumiquinazoline J (76)	Antibacterial	Broth microdilution/ <i>Gibberella saubinetii</i> .	1.0 µg/mL (MIC)	Gentamicin, 0.5 µg/mL (MIC)	[36]
		Broth microdilution/ <i>Bacillus subtilis</i>	1.0 µg/mL (MIC)	Gentamicin, 1.0 µg/mL (MIC)	[36]
		Broth microdilution/ <i>Staphylococcus aureus</i>	1.0 µg/mL (MIC)	Gentamicin, 0.5 µg/mL (MIC)	[36]
		Broth microdilution/ <i>Escherichia coli</i>	1.0 µg/mL (MIC)	Gentamicin, 0.5 µg/mL (MIC)	[36]
	Antifungal	Broth microdilution/ <i>Candida albicans</i>	2.0 µg/mL (MIC)	Nystatin, 4.0 µg/mL (MIC)	[36]
		Broth microdilution/ <i>Penicillium chrysogenum</i>	4.0 µg/mL (MIC)	Nystatin, 4.0 µg/mL (MIC)	[36]
		Broth microdilution/ <i>Fusarium solani</i>	2.0 µg/mL (MIC)	Nystatin, 8.0 µg/mL (MIC)	[36]
Fumigatosides E (82)	Antibacterial	Broth microdilution/ <i>A. baumannii</i> (ATCC 15122)	6.25 µg/mL (MIC)	Streptomycin, 12.5 µg/mL (MIC)	[70]
		Broth microdilution/ <i>S. aureus</i> (ATCC 16339)	6.25 µg/mL (MIC)	Streptomycin, 6.25 µg/mL (MIC)	[70]
Chaetominine (88)	Antifungal	Broth microdilution/ <i>Fusarium oxysporum</i>	31.25 µg/mL (MIC)	Ketoconazole, 15.62 µg/mL (MIC)	[55]
Secofumigaclavine B (124)	Anti-inflammatory	Griess method/ LPS-induced NO production in RAW264.7 cells	3.48 µM (IC ₅₀)	Indomethacin, 10.99 µM (IC ₅₀)	[82]
Fumigaclavine C (125)	Antifungal	Broth microdilution/ <i>T. rubrum</i>	31.5 µg/mL (MIC),	Ketonazole, 31.5 µg/mL (MIC)	[42]
9-Deacetoxyfumigaclavine C (128)	Cytotoxicity	MTT/ K562	3.1 µM (IC ₅₀)	Doxorubicin, 1.2 µM (IC ₅₀)	[52]
Secofumigaclavine D (130)	Anti-inflammatory	Griess method/ LPS-induced NO production in RAW264.7 cells	7.83 µM (IC ₅₀)	Indomethacin, 10.99 µM (IC ₅₀)	[82]

Secofumigaclavine E (131)	Anti-inflammatory	Griess method/ LPS-induced NO production in RAW264.7 cells	9.47 μ M (IC ₅₀)	Indomethacin, 10.99 μ M (IC ₅₀)	[82]
Fumigaclavine I (134)	Antifungal	Broth microdilution/ <i>Fusarium oxysporum</i>	15.62 μ g/mL (MIC)	Ketoconazole, 15.62 μ g/mL (MIC)	[55]
		Broth microdilution/ <i>Coriolus versicolor</i>	15.62 μ g/mL (MIC)	Ketoconazole, 7.80 μ g/mL (MIC)	[55]
		Broth microdilution/ <i>Fusarium solani</i>	62.50 μ g/mL (MIC)	Ketoconazole, 31.25 μ g/mL (MIC)	[55]
		Broth microdilution/ <i>Botrytis cinerea</i>	15.62 μ g/mL (MIC)	Ketoconazole, 15.62 μ g/mL (MIC)	[55]
		Broth microdilution/ <i>Fusarium graminearum</i>	31.25 μ g/mL (MIC)	Ketoconazole, 15.62 μ g/mL (MIC)	[55]
Fumigaclavine J (135)	Antifungal	Broth microdilution/ <i>Fusarium oxysporum</i>	31.25 μ g/mL (MIC)	Ketoconazole, 15.62 μ g/mL (MIC)	[55]
Pseurotin A (141)	Antibacterial	Broth microdilution/ <i>E. coli</i>	0.78 μ g/mL (MIC)	Ampicillin, 0.39 μ g/mL (MIC)	[62]
		Broth microdilution/ <i>S. aureus</i>	0.39 μ g/mL (MIC)	Ampicillin, 0.39 μ g/mL (MIC)	[62]
Gliotoxin (197)	Cytotoxicity	MTT/U937	0.20 μ M (IC ₅₀)	Doxorubicin HCl, 0.021 μ M (IC ₅₀)	[33]
		MTT/PC-3	0.39 μ M (IC ₅₀)	Doxorubicin HCl, 0.73 μ M (IC ₅₀)	[33]
	Antibacterial	Broth microdilution/ <i>E. coli</i>	0.78 μ g/mL (MIC)	Ampicillin, 0.39 μ g/mL (MIC)	[62]
Bisdethiobis(methylthio)gliotoxin (201)	Cytotoxicity	MTT/U937	0.52 μ M (IC ₅₀)	Doxorubicin HCl, 0.021 μ M (IC ₅₀)	[33]
	Antifungal	Broth microdilution/ <i>C. albicans</i>	0.39 μ g/mL (MIC)	Amphotericin B, 0.39 μ g/mL (MIC)	[62]
<i>epi</i> -Aszonalenin A (209)	Antibacterial	Broth microdilution/ <i>A. baumannii</i> (ATCC 15122)	6.25 μ g/mL (MIC)	Streptomycin, 12.5 μ g/mL (MIC)	[70]
Pyripyropene A (232)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	0.16 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[116]
Pyripyropene B (235)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	0.32 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[116]
Pyripyropene C (236)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	0.15 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[116]
Pyripyropene D (237)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	0.268 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[119]

Pyripyropene I (242)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	2.45 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[117]
Pyripyropene J (243)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	0.85 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[117]
Pyripyropene K (244)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	2.65 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[117]
Pyripyropene L (245)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	0.27 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[116]
Pyripyropene M (246)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	3.80 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[116]
Pyripyropene N (247)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	48.00 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[116]
Pyripyropene O (248)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	11.00 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[116]
Pyripyropene P (249)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	44.00 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[116]
Pyripyropene Q (250)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	40.00 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[116]
Pyripyropene R (251)	ACAT inhibitor	Radioactive using enzyme rate liver microsomes	78.00 μ M (IC ₅₀)	CL-283,546, 1.3 μ M (IC ₅₀)	[116]
Fumiparaphine A (268)	Antifungal	Broth microdilution/ <i>Alternaria alternata</i>	2.0 μ g/mL (MIC)	Nystatin, 2.0 μ g/mL (MIC)	[128]
Helvolic acid (273)	Antifungal	Broth microdilution/ <i>T. rubrum</i>	31.5 μ g/mL (MIC),	Ketonazole, 31.5 μ g/mL (MIC)	[42]
		Broth microdilution/ <i>Botrytis cinerea</i>	6.25 μ g/mL (MIC)	Carbendazim, 12.5 μ g/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	12.5 μ g/mL (MIC)	Carbendazim, 12.5 μ g/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	6.25 μ g/mL (MIC)	Carbendazim, 6.25 μ g/mL (MIC)	[34]
		Broth microdilution/ <i>Colletotrichum gloeosporioides</i>	6.25 μ g/mL Helvolic acid (MIC)	Carbendazim, 6.25 μ g/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium solani</i>	50.0 μ g/mL (MIC)	Carbendazim, 25.0 μ g/mL (MIC)	[34]

		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>niveum</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	25.0 µg/mL (MIC)	Carbendazim, 25.0 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Gibberella saubinetii</i> .	6.25 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
	Antibacterial	2-Fold dilution/ <i>Streptococcus agalactiae</i>	8.0 µg/mL (MIC)	Tobramycin, 32.0 µg/mL (MIC)	[130]
16-O-Propionyl-16-O-deacetylhelvolic acid (281)	Antibacterial	2-Fold dilution/ <i>Streptococcus agalactiae</i>	16.0 µg/mL (MIC)	Tobramycin, 32.0 µg/mL (MIC)	[130]
6-O-Propionyl-6-O-deacetylhelvolic acid (282)	Antibacterial	2-Fold dilution/ <i>Streptococcus agalactiae</i>	2.0 µg/mL (MIC)	Tobramycin, 32.0 µg/mL (MIC)	[130]
24- <i>epi</i> -6β,16β-Diacetoxy-25-hydroxy-3,7-dioxo-29-nordammara-1,17(20)-diene-21,24-lactone (286)	Antibacterial	2-Fold dilution/ <i>Streptococcus agalactiae</i>	64.0 µg/mL (MIC)	Tobramycin, 32.0 µg/mL (MIC)	[130]
22- <i>O</i> -Acetylisocyclocitrinol A (294)	Antibacterial	Broth microdilution/ <i>A. baumannii</i> (ATCC 15122)	12.5 µg/mL (MIC)	Streptomycin, 12.5 µg/mL (MIC)	[70]
1-(8-Methoxy-3-methyl-1H-isochromen-6-yl)propan-1-one (357)	Antibacterial	Broth microdilution/ <i>Pseudomonas syringae</i> pv. <i>angulata</i>	6.8 µg/mL (MIC)	Streptomycin, 2.2 µg/mL (MIC)	[141]
3-Hydroxy-1-(8-methoxy-3-methyl-1H-isochromen-7-yl)propan-1-one (358)	Antibacterial	Broth microdilution/ <i>Pseudomonas syringae</i> pv. <i>angulata</i>	8.4 µg/mL (MIC)	Streptomycin, 2.2 µg/mL (MIC)	[141]
4,8-Dihydroxy-1-tetralone (383)	Antifungal	Broth microdilution/ <i>Botrytis cinerea</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria solani</i>	12.5 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Alternaria alternata</i> (Fries) Keissler	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Colletotrichum gloeosporioides</i>	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium solani</i>	50.0 µg/mL (MIC)	Carbendazim, 25.0 µg/mL (MIC)	[34]
		Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>niveum</i>	25.0 µg/mL (MIC)	Carbendazim, 12.5 µg/mL (MIC)	[34]

Broth microdilution/ <i>Fusarium oxysporum</i> f. sp. <i>vasinfectum</i>	50.0 µg/mL (MIC)	Carbendazim, 25.0 µg/mL (MIC)	[34]
Broth microdilution/ <i>Gibberella saubinetii</i> .	12.5 µg/mL (MIC)	Carbendazim, 6.25 µg/mL (MIC)	[34]