

*Review*

# **Phytochemistry and Biological Activities of Endophytic Fungi from the Meliaceae Family**

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## **Supplementary Materials**

**Table S1.** Secondary Metabolites Derived from Endophytic fungi-Meliaceae

**Table S2.** Antimicrobial Activity of Compounds that have been evaluated against several fungi and bacteria

**Table S3.** Cytotoxic Activity of compounds (165–174) against Several Cells

**Table S1.** Secondary Metabolites Derived from Endophytic fungi-Meliaceae.

Compounds	Molecular Formula	Molecular Mass	Fungal Strains	Host Plant	Plant Parts	Fermentation Media	Ref.
<b>Terpenoids</b>							
Merulin A (1)	C <sub>14</sub> H <sub>22</sub> O <sub>4</sub>	254.1518	XG8D	<i>X. granatum</i>	Leaves	Corn steep-containing medium (broth)	[31]
Merulin B (2)	C <sub>15</sub> H <sub>24</sub> O <sub>5</sub>	284.1624	XG8D	<i>X. granatum</i>	Leaves	Corn steep-containing medium (broth)	[31]
Merulin C (3)	C <sub>15</sub> H <sub>22</sub> O <sub>5</sub>	282.1467	XG8D	<i>X. granatum</i>	Leaves	Corn steep-containing medium (broth)	[31]
Helvolic acid (4)	C <sub>33</sub> H <sub>44</sub> O <sub>8</sub>	568.3036	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Azadirachtin A (5)	C <sub>35</sub> H <sub>44</sub> O <sub>16</sub>	720.714	<i>E. parvum</i>	<i>A. indica</i> A. Juss.	Seeds. Leaves, Stem/Twigs, Inner Bark, Roots	Sabouraud dextrose broth (SB)	[33]
Azadirachtin B (6)	C <sub>33</sub> H <sub>42</sub> O <sub>14</sub>	662.681	<i>E. parvum</i>	<i>A. indica</i> A. Juss.	Seeds. Leaves, Stem/Twigs, Inner Bark, Roots	Sabouraud dextrose broth (SB)	[33]
Pycnophorin (7)	C <sub>27</sub> H <sub>40</sub> O <sub>4</sub>	428.2927	<i>B. dothidea</i> KJ-1	<i>M. azedarach</i> L.	Stem	Rice	[34]
(1S,4S,5R,7R,10R,11R)-guaiane-5,10,11,12-tetraol (8)	C <sub>15</sub> H <sub>28</sub> O <sub>4</sub>	272.1988	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[35]
(1S,4S,5S,7R,10R,11S)-guaiane-1,10,11,12-tetraol (9)	C <sub>15</sub> H <sub>28</sub> O <sub>4</sub>	272.1988	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[35]
(1S,4S,5R,7R,10R,11S)-guaiane-5,10,11,12-tetraol (10)	C <sub>15</sub> H <sub>28</sub> O <sub>4</sub>	272.1988	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[35]
(1S,4S,5S,7R,10R,11R)-guaiane-1,10,11,12-tetraol (11)	C <sub>15</sub> H <sub>28</sub> O <sub>4</sub>	272.1988	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[35]
(1R,3S,4R,5S,7R,10R,11S)-guaiane-3,10,11,12-tetraol (12)	C <sub>15</sub> H <sub>28</sub> O <sub>5</sub>	288.1937	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[35]
(1R,3R,4R,5S,7R,10R,11R)-guaiane-3,10,11,12-tetraol (13)	C <sub>15</sub> H <sub>28</sub> O <sub>4</sub>	272.1988	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[35]
(1R,4S,5S,7S,9R,10S,11R)-guaiane-9,10,11,12-tetraol (14)	C <sub>15</sub> H <sub>28</sub> O <sub>4</sub>	272.1988	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[35]
(1R,4S,5S,7R,10R,11S)-guaiane-10,11,12-triol (15)	C <sub>15</sub> H <sub>28</sub> O <sub>3</sub>	256.2038	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[35]

(1 <i>R</i> ,4 <i>S</i> ,5 <i>S</i> ,7 <i>R</i> ,10 <i>R</i> ,11 <i>R</i> )-guaiane-10,11,12-triol ( <b>16</b> )	C <sub>15</sub> H <sub>28</sub> O <sub>3</sub>	256.2038	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[35]
14 <i>α</i> ,16-epoxy-18-norisopimar-7-en-4 <i>α</i> -ol ( <b>17</b> )	C <sub>19</sub> H <sub>30</sub> O <sub>2</sub>	290.2246	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[35]
16-O-sulfo-18-norisopimar-7-en-4 <i>α</i> ,16-diol ( <b>18</b> )	C <sub>19</sub> H <sub>32</sub> O <sub>5</sub> S	372.1970	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[35]
9-deoxy-hymatoxin A ( <b>19</b> )	C <sub>20</sub> H <sub>30</sub> O <sub>6</sub> S	398.1763	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[35]
guaiane-2,10,11,12-tetraol ( <b>20</b> )	C <sub>15</sub> H <sub>28</sub> O <sub>4</sub>	272.1988	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[36]
guaiane-2,4,10,11,12-pentaol ( <b>21</b> )	C <sub>15</sub> H <sub>28</sub> O <sub>5</sub>	288.1937	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[36]
guaiane-4,5,10,11,12-pentaol ( <b>22</b> )	C <sub>15</sub> H <sub>28</sub> O <sub>5</sub>	288.1937	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[36]
guaiane-1,5,10,11,12-pentaol ( <b>23</b> )	C <sub>15</sub> H <sub>28</sub> O <sub>5</sub>	288.1937	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[36]
11-methoxyguaiane-4,10,12-triol ( <b>24</b> )	C <sub>16</sub> H <sub>30</sub> O <sub>4</sub>	286.2144	<i>Xylaria</i> sp. YM 311647	<i>A. indica</i> A Juss	Stem	PDA, PDB	[36]
(9 <i>R</i> , 10 <i>R</i> )-dihydroharzianone ( <b>25</b> )	C <sub>20</sub> H <sub>32</sub> O	288.2453	<i>Trichoderma</i> sp. Xy24	<i>X. granatum</i>	Leaves, Stems, and Peels	PDA liquid medium	[37]
Harzianelactone ( <b>26</b> )	C <sub>20</sub> H <sub>30</sub> O <sub>2</sub>	302.2246	<i>Trichoderma</i> sp. Xy24	<i>X. granatum</i>	Leaves, Stems, and Peels	PDA liquid medium	[37]
Pestaloporinate A ( <b>27</b> )	C <sub>21</sub> H <sub>32</sub> O <sub>7</sub>	396.2148	<i>Pestalotiopsis</i> sp.	<i>M. azaderach</i> Linn	Stem Bark	PDB	[38]
Pestaloporinate B ( <b>28</b> )	C <sub>19</sub> H <sub>26</sub> O <sub>6</sub>	350.1729	<i>Pestalotiopsis</i> sp.	<i>M. azaderach</i> Linn	Stem Bark	PDB	[38]
Pestaloporinate C ( <b>29</b> )	C <sub>18</sub> H <sub>26</sub> O <sub>5</sub>	322.1780	<i>Pestalotiopsis</i> sp.	<i>M. azaderach</i> Linn	Stem Bark	PDB	[38]
Pestaloporinate D ( <b>30</b> )	C <sub>18</sub> H <sub>26</sub> O <sub>5</sub>	322.1780	<i>Pestalotiopsis</i> sp.	<i>M. azaderach</i> Linn	Stem Bark	PDB	[38]
Pestaloporinate E ( <b>31</b> )	C <sub>20</sub> H <sub>32</sub> O <sub>6</sub>	368.2199	<i>Pestalotiopsis</i> sp.	<i>M. azaderach</i> Linn	Stem Bark	PDB	[38]
Pestaloporinate F ( <b>32</b> )	C <sub>18</sub> H <sub>28</sub> O <sub>4</sub>	308.1988	<i>Pestalotiopsis</i> sp.	<i>M. azaderach</i> Linn	Stem Bark	PDB	[38]
Pestaloporinate G ( <b>33</b> )	C <sub>19</sub> H <sub>30</sub> O <sub>4</sub>	322.2144	<i>Pestalotiopsis</i> sp.	<i>M. azaderach</i> Linn	Stem Bark	PDB	[38]
14-acetylhumulane ( <b>34</b> )	C <sub>16</sub> H <sub>22</sub> O <sub>5</sub>	294.1467	<i>Pestalotiopsis</i> sp.	<i>M. azaderach</i> Linn	Stem Bark	PDB	[38]

Merulinol A (35)	C <sub>14</sub> H <sub>22</sub> O <sub>4</sub>	254.1518	XG8D	<i>X. granatum</i>	Leaves	Sabouraud Dextrose Broth (SDB)	[39]
Merulinol B (36)	C <sub>15</sub> H <sub>26</sub> O <sub>3</sub>	254.1882	XG8D	<i>X. granatum</i>	Leaves	Sabouraud Dextrose Broth (SDB)	[39]
Merulinol C (37)	C <sub>16</sub> H <sub>26</sub> O <sub>3</sub>	266.1882	XG8D	<i>X. granatum</i>	Leaves	Sabouraud Dextrose Broth (SDB)	[39]
Merulinol D (38)	C <sub>16</sub> H <sub>26</sub> O <sub>3</sub>	266.1882	XG8D	<i>X. granatum</i>	Leaves	Sabouraud Dextrose Broth (SDB)	[39]
Merulinol E (39)	C <sub>15</sub> H <sub>20</sub> O <sub>4</sub>	264.1362	XG8D	<i>X. granatum</i>	Leaves	Sabouraud Dextrose Broth (SDB)	[39]
Merulinol F (40)	C <sub>15</sub> H <sub>24</sub> O <sub>5</sub>	284.1624	XG8D	<i>X. granatum</i>	Leaves	Sabouraud Dextrose Broth (SDB)	[39]
Aciicolinol C (41)	C <sub>15</sub> H <sub>24</sub> O <sub>4</sub>	268.1675	XG8D	<i>X. granatum</i>	Leaves	Sabouraud Dextrose Broth (SDB)	[39]
Aciicolinol K (42)	C <sub>15</sub> H <sub>22</sub> O <sub>5</sub>	282.1467	XG8D	<i>X. granatum</i>	Leaves	Sabouraud Dextrose Broth (SDB)	[39]
Aciicolinol F (43)	C <sub>15</sub> H <sub>24</sub> O <sub>3</sub>	252.1725	XG8D	<i>X. granatum</i>	Leaves	Sabouraud Dextrose Broth (SDB)	[39]
Aciicolinol D (44)	C <sub>15</sub> H <sub>24</sub> O <sub>3</sub>	252.1725	XG8D	<i>X. granatum</i>	Leaves	Sabouraud Dextrose Broth (SDB)	[39]
Colletotrin (45)	C <sub>29</sub> H <sub>42</sub> O <sub>9</sub>	534.2829	<i>C. gloeosporioides</i>	<i>T. monadelpha</i>	Stem bark	Rice	[27]
Hydroheptelidic acid (46)	C <sub>15</sub> H <sub>22</sub> O <sub>5</sub>	282.1467	<i>C. gloeosporioides</i>	<i>T. monadelpha</i>	Stem bark	Rice	[27]
(7 <i>R</i> ,10 <i>S</i> )-7,10-epoxysydonic acid (47)	C <sub>15</sub> H <sub>20</sub> O <sub>4</sub>	264.1362	<i>Aspergillus</i> sp. xy02	<i>X. moluccensis</i>	Leaves	Rice + Sea Salt	[40]
(7 <i>S</i> ,10 <i>S</i> )-7,10-epoxysydonic acid (48)	C <sub>15</sub> H <sub>20</sub> O <sub>4</sub>	264.1362	<i>Aspergillus</i> sp. xy02	<i>X. moluccensis</i>	Leaves	Rice + Sea Salt	[40]
(7 <i>R</i> ,11 <i>S</i> )-7,12-epoxysydonic acid (49)	C <sub>15</sub> H <sub>20</sub> O <sub>4</sub>	264.1362	<i>Aspergillus</i> sp. xy02	<i>X. moluccensis</i>	Leaves	Rice + Sea Salt	[40]
(7 <i>S</i> ,11 <i>S</i> )-7,12-epoxysydonic acid (50)	C <sub>15</sub> H <sub>20</sub> O <sub>4</sub>	264.1362	<i>Aspergillus</i> sp. xy02	<i>X. moluccensis</i>	Leaves	Rice + Sea Salt	[40]
7-deoxy-7,14-didehydro-12-hydroxysydonic acid (51)	C <sub>15</sub> H <sub>20</sub> O <sub>4</sub>	264.1362	<i>Aspergillus</i> sp. xy02	<i>X. moluccensis</i>	Leaves	Rice + Sea Salt	[40]
(Z)-7-deoxy-7,8-didehydro-12-hydroxy-sydonic acid (52)	C <sub>15</sub> H <sub>20</sub> O <sub>4</sub>	264.1362	<i>Aspergillus</i> sp. xy02	<i>X. moluccensis</i>	Leaves	Rice + Sea Salt	[40]
(E)-7-deoxy-7,8-didehydro-12-hydroxysydonic acid (53)	C <sub>15</sub> H <sub>20</sub> O <sub>4</sub>	264.1362	<i>Aspergillus</i> sp. xy02	<i>X. moluccensis</i>	Leaves	Rice + Sea Salt	[40]
(+)-1-hydroxyboivinianic acid (54)	C <sub>12</sub> H <sub>12</sub> O <sub>5</sub>	236.0685	<i>Aspergillus</i> sp. xy02	<i>X. moluccensis</i>	Leaves	Rice + Sea Salt	[40]
engyodontiumone I (55)	C <sub>15</sub> H <sub>20</sub> O <sub>4</sub>	264.1362	<i>Aspergillus</i> sp. xy02	<i>X. moluccensis</i>	Leaves	Rice + Sea Salt	[40]
(+)-sydonic acid (56)	C <sub>15</sub> H <sub>22</sub> O <sub>4</sub>	266.1518	<i>Aspergillus</i> sp. xy02	<i>X. moluccensis</i>	Leaves	Rice + Sea Salt	[40]
(+)-hydroxysydonic acid (57)	C <sub>15</sub> H <sub>22</sub> O <sub>5</sub>	282.1467	<i>Aspergillus</i> sp. xy02	<i>X. moluccensis</i>	Leaves	Rice + Sea Salt	[40]
(-)-(7 <i>S</i> )-10-hydroxysydonic acid (58)	C <sub>15</sub> H <sub>22</sub> O <sub>5</sub>	282.1467	<i>Aspergillus</i> sp. xy02	<i>X. moluccensis</i>	Leaves	Rice + Sea Salt	[40]

Guaiadiol (59)	C <sub>17</sub> H <sub>30</sub> O	250.2297	Xylaria sp. HNWSW-2	<i>X. granatum</i>	Stem	Rice	[41]
Penicieudesmol A (60)	C <sub>15</sub> H <sub>26</sub> O <sub>2</sub>	238.2933	<i>Penicillium</i> sp. J-54	<i>C. tagal</i>	Leaves	Potato and Glucose Broth	[25]
Peniceduesmol B (61)	C <sub>15</sub> H <sub>26</sub> O <sub>3</sub>	254.1882	<i>Penicillium</i> sp. J-54	<i>C. tagal</i>	Leaves	Potato and Glucose Broth	[25]
Penicieudesmol C (62)	C <sub>15</sub> H <sub>26</sub> O <sub>3</sub>	254.1882	<i>Penicillium</i> sp. J-54	<i>C. tagal</i>	Leaves	Potato and Glucose Broth	[25]
Penicieudesmol D (63)	C <sub>15</sub> H <sub>26</sub> O <sub>4</sub>	270.1831	<i>Penicillium</i> sp. J-54	<i>C. tagal</i>	Leaves	Potato and Glucose Broth	[25]
Hydroxyldecandrin G (64)	C <sub>20</sub> H <sub>28</sub> O <sub>4</sub>	332.1988	Xylaria sp. XC-16	<i>T. sinensis</i>	Leaves	PD liquid medium	[42]
<b>Steroids</b>							
Ergokonin B (65)	C <sub>28</sub> H <sub>42</sub> O <sub>5</sub>	458.3032	<i>Fusarium</i> sp. LN-11	<i>M. azedarach</i>	Leaves	Liquid Culture	[21]
Cerevisterol (66)	C <sub>28</sub> H <sub>46</sub> O <sub>3</sub>	430.3447	<i>Fusarium</i> sp. LN-11	<i>M. azedarach</i>	Leaves	Liquid Culture	[21]
Ergosterol peroxide (67)	C <sub>28</sub> H <sub>44</sub> O <sub>3</sub>	428.3290	<i>F. phaseoli</i>	<i>C. macrophyllus</i>	Root	Unpolished brown rice	[43]
β-sitosterol glucoside (68)	C <sub>34</sub> H <sub>58</sub> O <sub>6</sub>	562.4233	<i>B. dothidea</i> KJ-1	<i>M. azedarach L.</i>	Stem	Rice	[44]
Ergosterol (69)	C <sub>28</sub> H <sub>44</sub> O	396.3392	<i>F. phaseoli</i>	<i>C. macrophyllus</i>	Root	Unpolished brown rice	[43]
5β,6β-epoxy-3β,15α-dihydroxy-(22E,24R)-ergosta-8(14),22-dien-7-one (70)	C <sub>28</sub> H <sub>42</sub> O <sub>4</sub>	442.3083	<i>B. dothidea</i> KJ-1	<i>M. azedarach L.</i>	Stem	Rice	[44]
5β,6β-epoxy-3β,7α-dihydroxy(22E,24R)-ergosta-8(14),22-dien-15-one (71)	C <sub>28</sub> H <sub>42</sub> O <sub>4</sub>	442.3083	<i>Eupenicillium</i> sp. HJ002	<i>X. granatum</i>		Potato Liquid Medium (33g sea salt in 1L of potato infusion)	[22]
5β,6β-epoxy-3β,7α,9α-trihydroxy-(22E,24R)-ergosta-8(14),22-dien-15-one (72)	C <sub>28</sub> H <sub>42</sub> O <sub>5</sub>	458.3032	<i>F. phaseoli</i>	<i>C. macrophyllus</i>	Root	Unpolished brown rice	[22]
3β,9α,15α-trihydroxy-(22E,24R)-10(5→4) abeo-ergosta-6,8(14),22-trien-5-one (73)	C <sub>28</sub> H <sub>42</sub> O <sub>4</sub>	442.3083	<i>Phomopsis</i> sp. MGF222	<i>X. granatum</i>		Potato Liquid Medium + Sea Salt	[45]
3,15-dihydroxyl-(22E,24R)-ergosta-5,8(14),22-trien-7-one (74)	C <sub>28</sub> H <sub>42</sub> O <sub>3</sub>	426.3134	<i>Phomopsis</i> sp. MGF222	<i>X. granatum</i>		Potato Liquid Medium + Sea Salt	[45]
(22E,24R)-ergosta-4,6,8(14),22-tetraen-3,15-dione (75)	C <sub>28</sub> H <sub>38</sub> O <sub>2</sub>	406.2872	<i>Phomopsis</i> sp. MGF222	<i>X. granatum</i>		Potato Liquid Medium + Sea Salt	[45]

Ergost-5,22E-dien-3 $\beta$ -oleate-20-ol (76)	C <sub>47</sub> H <sub>80</sub> O <sub>3</sub>	692.6107	<i>F. phaseoli</i>	<i>C. macrophyllus</i>	Root	Unpolished brown rice	[43]
Atroside (77)	C <sub>51</sub> H <sub>90</sub> O <sub>7</sub>	814.6687	<i>F. phaseoli</i>	<i>C. macrophyllus</i>	Root	Unpolished brown rice	[43]
<b>Meroterpenes</b>							
Pra Austinoid A (78)	C <sub>26</sub> H <sub>36</sub> O <sub>6</sub>	444.2508	<i>Penicillium</i> sp.	<i>M. azedarach</i>	Root bark	Rice	[46]
Pra Austinoid B (79)	C <sub>26</sub> H <sub>36</sub> O <sub>6</sub>	444.2505	<i>Penicillium</i> sp.	<i>M. azedarach</i>	Root bark	Rice	[46]
Pra Austinoid A1 (80)	C <sub>26</sub> H <sub>36</sub> O <sub>7</sub>	460.2461	<i>P. brasiliense</i>	<i>M. azedarach</i>	Root bark	Rice	[47]
Pra Austinoid B2 (81)	C <sub>24</sub> H <sub>34</sub> O <sub>5</sub>	402.2406	<i>P. brasiliense</i>	<i>M. azedarach</i>	Root bark	Rice	[47]
Austinolide (82)	C <sub>22</sub> H <sub>26</sub> O <sub>9</sub>	434.1577	<i>P. brasiliense</i>	<i>M. azedarach</i>	Root bark	Rice	[47]
<b>Polyketide</b>							
Aurasperone A (83)	C <sub>32</sub> H <sub>26</sub> O <sub>10</sub>	570.1526	<i>A. aculeatus</i> Lizuka	<i>M. azedarach</i>		Parboiled Rice	[48]
Fonsecinone A (84)	C <sub>32</sub> H <sub>26</sub> O <sub>10</sub>	570.1526	<i>A. aculeatus</i> Lizuka	<i>M. azedarach</i>		Parboiled Rice	[48]
Dianhydro-aurasperone C (85)	C <sub>31</sub> H <sub>24</sub> O <sub>10</sub>	556.1369	<i>Aspergillus</i> sp. KJ-9	<i>M. azedarach</i>	Stem Bark		[44]
Isoaurasperone A (86)	C <sub>32</sub> H <sub>26</sub> O <sub>10</sub>	570.1526	<i>Aspergillus</i> sp. KJ-9	<i>M. azedarach</i>	Stem Bark		[44]
Fonsecinone A (87)	C <sub>31</sub> H <sub>24</sub> O <sub>10</sub>	556.1369	<i>Aspergillus</i> sp. KJ-9	<i>M. azedarach</i>	Stem Bark		[44]
Asperpyrone A (88)	C <sub>31</sub> H <sub>24</sub> O <sub>10</sub>	556.1369	<i>Aspergillus</i> sp. KJ-9	<i>M. azedarach</i>	Stem Bark		[44]
Rubrofusarin B (89)	C <sub>16</sub> H <sub>14</sub> O <sub>5</sub>	286.0841	<i>Aspergillus</i> sp. KJ-9	<i>M. azedarach</i>	Stem Bark		[44]
Stemphyperylene (90)	C <sub>20</sub> H <sub>16</sub> O <sub>6</sub>	392.0947	<i>B. dothidea</i> KJ-1	<i>M. azedarach</i> L.	Stem	Rice	[34]
Phomopsol A (91)	C <sub>20</sub> H <sub>19</sub> NO <sub>4</sub>	337.1314	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves		[49]
Phomopsol B (92)	C <sub>16</sub> H <sub>18</sub> O <sub>5</sub>	290.1154	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves		[49]
3-(2,6-dihydroxyphenyl)-4-hydroxy-6methylisobenzofuran-1(3H)-one (93)	C <sub>15</sub> H <sub>12</sub> O <sub>5</sub>	272.0685	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves		[49]
Eucalactam B (94)	C <sub>24</sub> H <sub>31</sub> N <sub>3</sub> O <sub>8</sub>	499.2894	<i>D. eucalyptorum</i> KY-9	<i>M. azedarach</i>	Leaves	Rice	[50]
Citrinin (95)	C <sub>13</sub> H <sub>14</sub> O <sub>5</sub>	250.0841	<i>P. janthinellum</i>	<i>M. azedarach</i>	Fruit	White corn	[51]
<b>Lactone</b>							
8 $\alpha$ -acetoxy-5 $\alpha$ -hydroxy-7-oxodecan-10-olide (96)	C <sub>12</sub> H <sub>18</sub> O <sub>6</sub>	258.1103	<i>Phomopsis</i> sp.	<i>A. indica</i>	Stem	PDB	[26]
7 $\alpha$ ,8 $\alpha$ -dihydroxy-3,5-decadien-10-olide (97)	C <sub>10</sub> H <sub>14</sub> O <sub>4</sub>	198.0892	<i>Phomopsis</i> sp.	<i>A. indica</i>	Stem	PDB	[26]

<i>7α-acetoxymultiplolide A</i> ( <b>98</b> )	C <sub>12</sub> H <sub>16</sub> O <sub>6</sub>	257.1032	<i>Phomopsis</i> sp.	<i>A. indica</i>	Stem	PDB	[26]
<i>8α-acetoxymultiplolide A</i> ( <b>99</b> )	C <sub>12</sub> H <sub>16</sub> O <sub>6</sub>	257.1021	<i>Phomopsis</i> sp.	<i>A. indica</i>	Stem	PDB	[26]
<i>Multiplolide A</i> ( <b>100</b> )	C <sub>10</sub> H <sub>14</sub> O <sub>5</sub>	214.0841	<i>Phomopsis</i> sp.	<i>A. indica</i>	Stem	PDB	[26]
<i>Nigrosporalactone</i> ( <b>101</b> )	C <sub>8</sub> H <sub>12</sub> O <sub>3</sub>	156.0786	<i>Nigrospora</i> sp. YB-141	<i>A. indica</i> A. Juss.	Stem	PDB	[52]
<i>Phomalactone</i> ( <b>102</b> )	C <sub>8</sub> H <sub>10</sub> O <sub>3</sub>	154.0630	<i>Nigrospora</i> sp. YB-141	<i>A. indica</i> A. Juss.	Stem	PDB	[52]
( <i>R</i> )- <i>striatisporolide A</i> ( <b>103</b> )	C <sub>11</sub> H <sub>16</sub> O <sub>4</sub>	212.1049	<i>Eupenicillium</i> sp. HJ002	<i>X. granatum</i>		Potato Liquid Medium (33g sea salt in 1L of potato infusion)	[22]
<b>Pyrone</b>							
<i>Solanapyrone N</i> ( <b>104</b> )	C <sub>18</sub> H <sub>23</sub> NO <sub>4</sub>	317.1627	<i>Nigrospora</i> sp. YB-141	<i>A. indica</i> A. Juss.	Stem	PDB	[52]
<i>Solanapyrone O</i> ( <b>105</b> )	C <sub>19</sub> H <sub>25</sub> NO <sub>3</sub>	315.1834	<i>Nigrospora</i> sp. YB-141	<i>A. indica</i> A. Juss.	Stem	PDB	[52]
<i>Solanapyrone C</i> ( <b>106</b> )	C <sub>19</sub> H <sub>25</sub> NO <sub>4</sub>	331.1784	<i>Nigrospora</i> sp. YB-141	<i>A. indica</i> A. Juss.	Stem	PDB	[52]
<i>Astropyrone</i> ( <b>107</b> )	C <sub>13</sub> H <sub>18</sub> O <sub>5</sub>	254.1154	<i>Xylaria</i> sp. HNWSW-2	<i>X. granatum</i>	Stem	Rice	[41]
<i>Xylaropyrone B</i> ( <b>108</b> )	C <sub>12</sub> H <sub>18</sub> O <sub>4</sub>	226.1205	<i>Xylaria</i> sp. HNWSW-2	<i>X. granatum</i>	Stem	Rice	[41]
<i>Xylaropyrone C</i> ( <b>109</b> )	C <sub>12</sub> H <sub>18</sub> O <sub>4</sub>	226.1205	<i>Xylaria</i> sp. HNWSW-2	<i>X. granatum</i>	Stem	Rice	[41]
<b>Quinone</b>							
<i>Javanicin</i> ( <b>110</b> )	C <sub>15</sub> H <sub>14</sub> O <sub>6</sub>	290.0790	<i>Chloridium</i> sp.	<i>A. indica</i>	Root	PDB	[53]
<b>Anthraquinone</b>							
<i>Emodin</i> (1,6,8-trihydroxy-3-methylantraquinone) ( <b>111</b> )	C <sub>15</sub> H <sub>10</sub> O <sub>5</sub>	270.0528	<i>P. janthinellum</i>	<i>M. azedarach</i>	Fruit	White corn	[51]
<i>Citreorosein</i> (1,6,8-trihydroxy-3-hydroxymethylanthraquinone) ( <b>112</b> )	C <sub>15</sub> H <sub>10</sub> O <sub>6</sub>	286.0477	<i>P. janthinellum</i>	<i>M. azedarach</i>	Fruit	White corn	[51]
<i>Janthinone</i> ( <b>113</b> )	C <sub>16</sub> H <sub>12</sub> O <sub>5</sub>	284.0685	<i>P. janthinellum</i>	<i>M. azedarach</i>	Fruit	White corn	[51]
<i>Arugosin O</i> ( <b>114</b> )	C <sub>26</sub> H <sub>30</sub> O <sub>5</sub>	422.2093	<i>Xylariaceae</i> sp.	<i>L. domesticum</i>	Leaves	Rice	[54]
<i>Arugosin P</i> ( <b>115</b> )	C <sub>33</sub> H <sub>42</sub> O <sub>8</sub>	566.2880	<i>Xylariaceae</i> sp.	<i>L. domesticum</i>	Leaves	Rice	[54]
<i>Arugosin Q</i> ( <b>116</b> )	C <sub>32</sub> H <sub>42</sub> O <sub>7</sub>	538.2931	<i>Xylariaceae</i> sp.	<i>L. domesticum</i>	Leaves	Rice	[54]
<i>Arugosin K</i> ( <b>117</b> )	C <sub>22</sub> H <sub>24</sub> O <sub>5</sub>	368.1624	<i>Xylariaceae</i> sp.	<i>L. domesticum</i>	Leaves	Rice	[54]
<i>Arugosin A</i> ( <b>118</b> )	C <sub>25</sub> H <sub>28</sub> O <sub>6</sub>	424.1886	<i>Xylariaceae</i> sp.	<i>L. domesticum</i>	Leaves	Rice	[54]
<i>Arugosin B</i> ( <b>119</b> )	C <sub>25</sub> H <sub>28</sub> O <sub>6</sub>	424.1886	<i>Xylariaceae</i> sp.	<i>L. domesticum</i>	Leaves	Rice	[54]

Arugosin N ( <b>120</b> ) 1,6,10-trihydroxy-8-methyl-2-(3-methyl-2- butenyl)-dibenzo[b,e]oxepin-11(6H)-one ( <b>121</b> )	C <sub>20</sub> H <sub>20</sub> O <sub>5</sub> C <sub>20</sub> H <sub>20</sub> O <sub>5</sub>	340.1311 340.1311	Xylariaceae sp. Xylariaceae sp.	<i>L. domesticum</i> <i>L. domesticum</i>	Leaves Leaves	Rice Rice	[54] [54]
Arugosin L ( <b>122</b> )	C <sub>22</sub> H <sub>24</sub> O <sub>5</sub>	368.1624	Xylariaceae sp.	<i>L. domesticum</i>	Leaves	Rice	[54]
Arugosin M ( <b>123</b> )	C <sub>21</sub> H <sub>22</sub> O <sub>5</sub>	354.1467	Xylariaceae sp.	<i>L. domesticum</i>	Leaves	Rice	[54]
Arugosin F ( <b>124</b> )	C <sub>15</sub> H <sub>12</sub> O <sub>5</sub>	272.0685	Xylariaceae sp.	<i>L. domesticum</i>	Leaves	Rice	[54]
Arugosin G ( <b>125</b> )	C <sub>30</sub> H <sub>36</sub> O <sub>6</sub>	492.2512	Xylariaceae sp.	<i>L. domesticum</i>	Leaves	Rice	[54]

<b>Xanthone</b>							
Phomoxanthone F ( <b>126</b> )	C <sub>14</sub> H <sub>12</sub> O <sub>6</sub>	276.0634	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice + Sea Salt	[55]
Phomoxanthone G ( <b>127</b> )	C <sub>15</sub> H <sub>16</sub> O <sub>7</sub>	308.0896	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice + Sea Salt	[55]
Phomoxanthone H ( <b>128</b> )	C <sub>15</sub> H <sub>16</sub> O <sub>7</sub>	308.0896	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice + Sea Salt	[55]
Phomoxanthone I ( <b>129</b> )	C <sub>15</sub> H <sub>16</sub> O <sub>5</sub>	276.0998	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice + Sea Salt	[55]
Phomoxanthone J ( <b>130</b> )	C <sub>15</sub> H <sub>12</sub> O <sub>6</sub>	288.0634	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice + Sea Salt	[55]
Phomoxanthone K ( <b>131</b> )	C <sub>15</sub> H <sub>10</sub> O <sub>7</sub>	302.0427	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice + Sea Salt	[55]
Leptosphaerin E ( <b>132</b> )	C <sub>15</sub> H <sub>12</sub> O <sub>5</sub>	272.0685	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice + Sea Salt	[55]
Mono-dicty xanthone (8-hydroxy-3-methyl-9-oxo-9H-xanthene-1-carboxylic acid) ( <b>133</b> )	C <sub>15</sub> H <sub>10</sub> O <sub>5</sub>	270.0528	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice + Sea Salt	[55]
2,2',6'-trihydroxy-4-methyl-6-methoxy-acyl-diphenylmethanone ( <b>134</b> )	C <sub>16</sub> H <sub>14</sub> O <sub>6</sub>	302.0790	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice + Sea Salt	[55]

<b>Isocoumarin</b>							
Penicimarin L ( <b>135</b> )	C <sub>13</sub> H <sub>14</sub> O <sub>6</sub>	266.0790	<i>Penicillium</i> sp. MGP11	<i>X. granatum</i>	Root	70g rice with 100 mL seawater (33g sea salt in 1 L distilled water)	[56]
Penicimarin M ( <b>136</b> )	C <sub>15</sub> H <sub>18</sub> O <sub>5</sub>	278.1154	<i>Penicillium</i> sp. MGP11	<i>X. granatum</i>	Root	70g rice with 100 mL seawater (33g sea salt in 1 L distilled water)	[56]
Peniisocoumarin E ( <b>137</b> )	C <sub>14</sub> H <sub>16</sub> O <sub>6</sub>	280.0947	<i>Penicillium</i> sp. MGP11	<i>X. granatum</i>	Root	70g rice with 100 mL seawater (33g sea salt in 1 L distilled water)	[56]
Apergilumarin A ( <b>138</b> )	C <sub>14</sub> H <sub>16</sub> O <sub>4</sub>	248.1049	<i>Penicillium</i> sp. MGP11	<i>X. granatum</i>	Root	70g rice with 100 mL seawater (33g sea salt in 1 L distilled water)	[56]

Penicimarin I (139)	C <sub>14</sub> H <sub>16</sub> O <sub>5</sub>	264.0998	<i>Penicillium</i> sp. MGP11	<i>X. granatum</i>	Root	70g rice with 100 mL seawater (33g sea salt in 1 L distilled water)	[56]
Peniisocoumarin F (140)	C <sub>14</sub> H <sub>18</sub> O <sub>5</sub>	266.1154	<i>Penicillium</i> sp. MGP11	<i>X. granatum</i>	Root	70g rice with 100 mL seawater (33g sea salt in 1 L distilled water)	[56]
Penicilloxalone B (141)	C <sub>14</sub> H <sub>16</sub> O <sub>5</sub>	264.0998	<i>Penicillium</i> sp. MGP11	<i>X. granatum</i>	Root	70g rice with 100 mL seawater (33g sea salt in 1 L distilled water)	[56]
Penicimarin G (142)	C <sub>15</sub> H <sub>20</sub> O <sub>5</sub>	280.1311	<i>Penicillium</i> sp. MGP11	<i>X. granatum</i>	Root	70g rice with 100 mL seawater (33g sea salt in 1 L distilled water)	[56]
Penicimarin H (143)	C <sub>15</sub> H <sub>18</sub> O <sub>5</sub>	278.1154	<i>Penicillium</i> sp. MGP11	<i>X. granatum</i>	Root	70g rice with 100 mL seawater (33g sea salt in 1 L distilled water)	[56]
Fusariumin (144)	C <sub>18</sub> H <sub>22</sub> O <sub>5</sub>	318.1467	<i>Fusarium</i> sp. LN-10	<i>M. azedarach</i>	Leaves	PDB	[57]
<b>Resorcylic Acid</b>							
Aigialomycin D (145)	C <sub>18</sub> H <sub>22</sub> O <sub>6</sub>	334.1416	<i>Fusarium</i> sp. LN-10	<i>M. azedarach</i>	Leaves	PDB	[57]
Pochonin N (146)	C <sub>18</sub> H <sub>27</sub> ClO <sub>7</sub>	384.0967	<i>Fusarium</i> sp. LN-10	<i>M. azedarach</i>	Leaves	PDB	[57]
Zearalenone (147)	C <sub>18</sub> H <sub>22</sub> O <sub>5</sub>	318.1467	<i>Fusarium</i> sp. LN-10	<i>M. azedarach</i>	Leaves	PDB	[57]
(15S)-de-O-methyllasiodiplodin (148)	C <sub>16</sub> H <sub>22</sub> O <sub>4</sub>	278.1518	<i>L. theobromae</i> GC-22	<i>X. granatum</i>	Dead Branch	Unpolished Rice	[58]
(13S,15S)-13-hydroxy-de-O-methyllasiodiplodin (149)	C <sub>16</sub> H <sub>22</sub> O <sub>5</sub>	294.1467	<i>L. theobromae</i> GC-22	<i>X. granatum</i>	Dead Branch	Unpolished Rice	[58]
(14S,15S)-14-hydroxy-de-O-methyllasiodiplodin (150)	C <sub>16</sub> H <sub>22</sub> O <sub>5</sub>	294.1467	<i>L. theobromae</i> GC-22	<i>X. granatum</i>	Dead Branch	Unpolished Rice	[58]
(13R,14S,15S)-13,14-dihydroxy-de-O-methyllasiodiplodin (151)	C <sub>16</sub> H <sub>22</sub> O <sub>6</sub>	310.1416	<i>L. theobromae</i> GC-22	<i>X. granatum</i>	Dead Branch	Unpolished Rice	[58]
ethyl (S)-2,4-dihydroxy-6-(8-hydroxynonyl)benzoate (152)	C <sub>18</sub> H <sub>28</sub> O <sub>5</sub>	324.1937	<i>L. theobromae</i> GC-22	<i>X. granatum</i>	Dead Branch	Unpolished Rice	[58]
ethyl 2,4-dihydroxy-6-(8-hydroxyheptyl) benzoate (153)	C <sub>16</sub> H <sub>24</sub> O <sub>5</sub>	296.1624	<i>L. theobromae</i> GC-22	<i>X. granatum</i>	Dead Branch	Unpolished Rice	[58]
ethyl 2,4-dihydroxy-6-(4-methoxycarbonylbutyl)benzoate (154)	C <sub>15</sub> H <sub>20</sub> O <sub>6</sub>	296.1260	<i>L. theobromae</i> GC-22	<i>X. granatum</i>	Dead Branch	Unpolished Rice	[58]

3-(2-ethoxycarbonyl-3,5-dihydroxyphenyl)propionic acid <b>(155)</b>	C <sub>12</sub> H <sub>14</sub> O <sub>6</sub>	254.0790	<i>L. theobromae</i> GC-22	<i>X. granatum</i>	Dead Branch	Unpolished Rice	[58]
(S)-2,4-dihydroxy-6-(8-hydroxynonyl)benzoate <b>(156)</b>	C <sub>20</sub> H <sub>32</sub> O <sub>5</sub>	352.2250	<i>L. theobromae</i> GC-22	<i>X. granatum</i>	Dead Branch	Unpolished Rice	[58]
ethyl 2,4-dihydroxy-6-(8-oxononyl)benzoate <b>(157)</b>	C <sub>18</sub> H <sub>26</sub> O <sub>5</sub>	322.1780	<i>L. theobromae</i> GC-22	<i>X. granatum</i>	Dead Branch	Unpolished Rice	[58]
<b>Cytochalasans</b>							
Cytochalasin Z <sub>27</sub> <b>(158)</b>	C <sub>28</sub> H <sub>33</sub> NO <sub>6</sub>	479.2308	<i>Xylaria</i> sp. XC-16	<i>T. sinensis</i>	Leaves	Rice	[24]
Cytochalasin Z <sub>28</sub> <b>(159)</b>	C <sub>28</sub> H <sub>33</sub> NO <sub>6</sub>	479.2308	<i>Xylaria</i> sp. XC-16	<i>T. sinensis</i>	Leaves	Rice	[24]
Seco-cytochalasin E <b>(160)</b>	C <sub>29</sub> H <sub>37</sub> NO <sub>8</sub>	527.2519	<i>Xylaria</i> sp. XC-16	<i>T. sinensis</i>	Leaves	Rice	[24]
Cytochalasin Z <sub>18</sub> <b>(161)</b>	C <sub>32</sub> H <sub>45</sub> NO <sub>8</sub>	571.3145	<i>Xylaria</i> sp. XC-16	<i>T. sinensis</i>	Leaves	Rice	[24]
Cytochalasin E <b>(162)</b>	C <sub>28</sub> H <sub>33</sub> NO <sub>7</sub>	495.2257	<i>Xylaria</i> sp. XC-16	<i>T. sinensis</i>	Leaves	Rice	[24]
			<i>Xylaria</i> sp. XC-16	<i>T. sinensis</i>	Leaves	PD liquid medium	[42]
Chaetoglobosin C <b>(163)</b>	C <sub>32</sub> H <sub>36</sub> N <sub>2</sub> O <sub>5</sub>	528.2624	<i>B. dothidea</i> KJ-1	<i>M. azedarach</i> L.	Stem	Rice	[34]
Chaetoglobosin F <b>(164)</b>	C <sub>32</sub> H <sub>38</sub> N <sub>2</sub> O <sub>5</sub>	530.2781	<i>B. dothidea</i> KJ-1	<i>M. azedarach</i> L.	Stem	Rice	[34]
Phomopsichalasin D <b>(165)</b>	C <sub>30</sub> H <sub>37</sub> NO <sub>6</sub>	509.2414	<i>Phomopsis</i> sp. xy22	<i>X. granatum</i>	Leaves	Rice	[59]
Phomopsichalasin E <b>(166)</b>	C <sub>30</sub> H <sub>37</sub> NO <sub>6</sub>	507.2621	<i>Phomopsis</i> sp. xy22	<i>X. granatum</i>	Leaves	Rice	[59]
Phomopsichalasin F <b>(167)</b>	C <sub>28</sub> H <sub>37</sub> NO <sub>3</sub>	435.2773	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice	[59]
Phomopsichalasin G <b>(168)</b>	C <sub>28</sub> H <sub>37</sub> NO <sub>4</sub>	451.2723	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice	[59]
4'-hydroxy-deacetyl-18-deoxycytochalasin H <b>(169)</b>	C <sub>28</sub> H <sub>37</sub> NO <sub>4</sub>	451.2723	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice	[59]
deacetyl-18-deoxycytochalasin H <b>(170)</b>	C <sub>28</sub> H <sub>37</sub> NO <sub>3</sub>	435.2773	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice	[59]
18-deoxycytochalasin H <b>(171)</b>	C <sub>30</sub> H <sub>39</sub> NO <sub>4</sub>	477.2879	<i>Phomopsis</i> sp. xy21	<i>X. granatum</i>	Leaves	Rice	[59]
cytochalasin H <b>(172)</b>	C <sub>30</sub> H <sub>39</sub> NO <sub>5</sub>	493.2828	<i>Phomopsis</i> sp. xy22	<i>X. granatum</i>	Leaves	Rice	[59]
deacetylcytochalasin H <b>(173)</b>	C <sub>28</sub> H <sub>37</sub> NO <sub>4</sub>	451.2723	<i>Phomopsis</i> sp. xy22	<i>X. granatum</i>	Leaves	Rice	[59]
epoxycytochalasin H <b>(174)</b>	C <sub>30</sub> H <sub>39</sub> NO <sub>5</sub>	493.2828	<i>Phomopsis</i> sp. xy22	<i>X. granatum</i>	Leaves	Rice	[59]
Cytochalasin D <b>(175)</b>	C <sub>30</sub> H <sub>37</sub> NO <sub>6</sub>	507.2621	<i>C. gloeosporioides</i>	<i>T. monadelpha</i>	Stem bark	Rice	[27]
Xylarisin B <b>(176)</b>	C <sub>23</sub> H <sub>35</sub> NO <sub>5</sub>	405.2515	<i>Xylaria</i> sp. HNWSW-2	<i>X. granatum</i>	Stem	Rice	[41]
Epoxycytochalasin Z <sub>17</sub> <b>(177)</b>	C <sub>28</sub> H <sub>33</sub> NO <sub>6</sub>	479.2308	<i>Xylaria</i> sp. XC-16	<i>T. sinensis</i>	Leaves	PD liquid medium	[42]
Epoxycytochalasin Z <sub>8</sub> <b>(178)</b>	C <sub>28</sub> H <sub>35</sub> NO <sub>6</sub>	481.2464	<i>Xylaria</i> sp. XC-16	<i>T. sinensis</i>	Leaves	PD liquid medium	[42]
Epoxyrosellichalasin <b>(179)</b>	C <sub>28</sub> H <sub>33</sub> NO <sub>6</sub>	479.2308	<i>Xylaria</i> sp. XC-16	<i>T. sinensis</i>	Leaves	PD liquid medium	[42]
10-phenyl-[12]-cytochalasin Z <sub>16</sub> <b>(180)</b>	C <sub>28</sub> H <sub>33</sub> NO <sub>5</sub>	463.2359	<i>Xylaria</i> sp. XC-16	<i>T. sinensis</i>	Leaves	PD liquid medium	[42]
10-phenyl-[12]-cytochalasin Z <sub>17</sub> <b>(181)</b>	C <sub>28</sub> H <sub>33</sub> NO <sub>5</sub>	463.2359	<i>Xylaria</i> sp. XC-16	<i>T. sinensis</i>	Leaves	PD liquid medium	[42]
Cytochalasin K <b>(182)</b>	C <sub>28</sub> H <sub>33</sub> NO <sub>7</sub>	495.2257	<i>Xylaria</i> sp. XC-16	<i>T. sinensis</i>	Leaves	PD liquid medium	[42]

Aromatics							
4,8-dihydroxy-1-tetralone ( <b>183</b> )	C <sub>10</sub> H <sub>10</sub> O <sub>3</sub>	178.0630	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
trans-3,4-dihydro-3,4,8-trihydroxynaphthalen-1(2H)-one ( <b>184</b> )	C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>	194.0579	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
cis-3,4-dihydro-3,4,8-trihydroxynaphthalen-1(2H)-one ( <b>185</b> )	C <sub>10</sub> H <sub>10</sub> O <sub>4</sub>	194.0579	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Altenuene ( <b>186</b> )	C <sub>15</sub> H <sub>16</sub> O <sub>6</sub>	292.0947	<i>B. dothidea</i> KJ-1	<i>M. azedarach</i> L.	Stem	Rice	[34]
Altenusin ( <b>187</b> )	C <sub>15</sub> H <sub>14</sub> O <sub>6</sub>	290.0790	<i>B. dothidea</i> KJ-1	<i>M. azedarach</i> L.	Stem	Rice	[34]
Djalonensone ( <b>188</b> )	C <sub>14</sub> H <sub>14</sub> O <sub>4</sub>	246.0892	<i>B. dothidea</i> KJ-1	<i>M. azedarach</i> L.	Stem	Rice	[34]
Alternariol ( <b>189</b> )	C <sub>15</sub> H <sub>12</sub> O <sub>5</sub>	272.0685	<i>B. dothidea</i> KJ-1	<i>M. azedarach</i> L.	Stem	Rice	[34]
5'-methoxy-6-methylbiphenyl-3,4,3'-triol ( <b>190</b> )	C <sub>14</sub> H <sub>10</sub> O <sub>5</sub>	258.0528	<i>B. dothidea</i> KJ-1	<i>M. azedarach</i> L.	Stem	Rice	[34]
7-hydroxy-1-isochromanone 3587 ( <b>191</b> )	C <sub>9</sub> H <sub>10</sub> O <sub>3</sub>	166.0630	<i>B. dothidea</i> KJ-1	<i>M. azedarach</i> L.	Stem	Rice	[34]
5-(hydroxymethyl)-1H-pyrrole-2-carbaldehyde ( <b>192</b> )	C <sub>6</sub> H <sub>7</sub> NO <sub>2</sub>	125.0477	<i>B. dothidea</i> KJ-1	<i>M. azedarach</i> L.	Stem	Rice	[34]
5-hydroxymethylfurfural ( <b>193</b> )	C <sub>6</sub> H <sub>6</sub> O <sub>3</sub>	126.0317	<i>B. dothidea</i> KJ-1	<i>M. azedarach</i> L.	Stem	Rice	[34]
3-chloro-5-hydroxy-4-methoxyphenylacetic acid methyl ester ( <b>194</b> )	C <sub>10</sub> H <sub>11</sub> ClO <sub>4</sub>	230.0346	<i>Eupenicillium</i> sp. HJ002	<i>X. granatum</i>		Potato Liquid Medium (33g sea salt in 1L of potato infusion)	[22]
4-hydroxyphenylacetate ( <b>195</b> )	C <sub>9</sub> H <sub>10</sub> O <sub>3</sub>	166.0630	<i>Eupenicillium</i> sp. HJ002	<i>X. granatum</i>		Potato Liquid Medium (33g sea salt in 1L of potato infusion)	[22]
Cytosporone B ( <b>196</b> )	C <sub>18</sub> H <sub>26</sub> O <sub>5</sub>	322.1780	<i>Eupenicillium</i> sp. HJ002	<i>X. granatum</i>		Potato Liquid Medium (33g sea salt in 1L of potato infusion)	[22]
Eugenitol ( <b>197</b> )	C <sub>12</sub> H <sub>12</sub> O <sub>4</sub>	220.0736	<i>D. eucalyptorum</i> KY-9	<i>M. azedarach</i>	Leaves	Rice	[50]
Cytosporone C ( <b>198</b> )	C <sub>16</sub> H <sub>22</sub> O <sub>2</sub>	246.1620	<i>D. eucalyptorum</i> KY-9	<i>M. azedarach</i>	Leaves	Rice	[50]
4-hydroxyphenethyl alcohol ( <b>199</b> )	C <sub>8</sub> H <sub>10</sub> O <sub>2</sub>	138.0681	<i>D. eucalyptorum</i> KY-9	<i>M. azedarach</i>	Leaves	Rice	[50]

1-(4-hydroxyphenyl)ethane-1,2-diol (200)	C <sub>8</sub> H <sub>10</sub> O <sub>3</sub>	154.0630	<i>D. eucalyptorum</i> KY-9	<i>M. azedarach</i>	Leaves	Rice	[50]
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<b>Ester</b>							
(R)-butanedioic acid (201)	C <sub>12</sub> H <sub>20</sub> O <sub>4</sub>	228.1362	Eupenicillium sp. HJ002	X. granatum	Potato Liquid Medium (33g sea salt in 1L of potato infusion)	[22]	
<b>Quinols</b>							
Cytosporin D (202)	C <sub>19</sub> H <sub>30</sub> O <sub>5</sub>	338.2093	<i>P. theae</i>	<i>T. longipes</i>	Leaves	Rice	[28]
Cytosporin F (203)	C <sub>21</sub> H <sub>32</sub> O <sub>6</sub>	380.2199	<i>P. theae</i>	<i>T. longipes</i>	Leaves	Rice	[28]
Cytosporin G (204)	C <sub>21</sub> H <sub>32</sub> O <sub>7</sub>	396.2148	<i>P. theae</i>	<i>T. longipes</i>	Leaves	Rice	[28]
Cytosporin H (205)	C <sub>21</sub> H <sub>32</sub> O <sub>7</sub>	396.2148	<i>P. theae</i>	<i>T. longipes</i>	Leaves	Rice	[28]
Cytosporin I (206)	C <sub>21</sub> H <sub>32</sub> O <sub>7</sub>	396.2148	<i>P. theae</i>	<i>T. longipes</i>	Leaves	Rice	[28]
Cytosporin J (207)	C <sub>19</sub> H <sub>30</sub> O <sub>6</sub>	354.2042	<i>P. theae</i>	<i>T. longipes</i>	Leaves	Rice	[28]
Cytosporin K (208)	C <sub>19</sub> H <sub>30</sub> O <sub>6</sub>	354.2042	<i>P. theae</i>	<i>T. longipes</i>	Leaves	Rice	[28]
<b>Alkaloids</b>							
Verruculogen (209)	C <sub>27</sub> H <sub>33</sub> N <sub>3</sub> O <sub>7</sub>	511.2319	Penicillium sp.	<i>M. azedarach</i>	Root bark	Rice	[46]
			<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
			<i>P. brasiliannum</i>	<i>M. azaderach</i>	Root bark	Rice	[60]
Brasiliamide A (210)	C <sub>24</sub> H <sub>26</sub> N <sub>2</sub> O <sub>6</sub>	438.1791	<i>P. brasiliannum</i>	<i>M. azedarach</i>	Root bark	Rice	[47]
Brasiliamide B (211)	C <sub>22</sub> H <sub>22</sub> N <sub>2</sub> O <sub>6</sub>	410.1478	<i>P. brasiliannum</i>	<i>M. azedarach</i>	Root bark	Rice	[47]
Fumitremorgin C (212)	C <sub>22</sub> H <sub>25</sub> N <sub>3</sub> O <sub>3</sub>	379.1896	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclotryprostatin A (213)	C <sub>22</sub> H <sub>25</sub> N <sub>3</sub> O <sub>5</sub>	411.1794	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclotryprostatin B (214)	C <sub>23</sub> H <sub>27</sub> N <sub>3</sub> O <sub>5</sub>	425.1951	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Verrulocogen TR-2 (215)	C <sub>22</sub> H <sub>27</sub> N <sub>3</sub> O <sub>6</sub>	429.1900	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
12β-hydroxyverruculogen TR-2 (216)	C <sub>22</sub> H <sub>27</sub> N <sub>3</sub> O <sub>6</sub>	429.1900	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
12β-hydroxy-13α-methoxyverruculogen TR-2 (217)	C <sub>23</sub> H <sub>29</sub> N <sub>3</sub> O <sub>6</sub>	443.2056	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Fumitremorgin B (218)	C <sub>27</sub> H <sub>33</sub> N <sub>3</sub> O <sub>5</sub>	479.2420	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Tryprostatin A (219)	C <sub>22</sub> H <sub>27</sub> N <sub>3</sub> O <sub>3</sub>	381.2052	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclo-L-tryptophyl-L-proline (220)	C <sub>16</sub> H <sub>17</sub> N <sub>3</sub> O <sub>2</sub>	283.1321	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Terezine D (221)	C <sub>19</sub> H <sub>23</sub> N <sub>3</sub> O <sub>2</sub>	325.1790	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Fumiquinazoline F (222)	C <sub>21</sub> H <sub>18</sub> N <sub>4</sub> O <sub>2</sub>	358.1430	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Fumiquinazoline G (223)	C <sub>21</sub> H <sub>18</sub> N <sub>4</sub> O <sub>2</sub>	358.1430	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]

Fumiquinazoline D (224)	C <sub>24</sub> H <sub>21</sub> N <sub>5</sub> O <sub>4</sub>	443.1594	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Fumiquinazoline A (225)	C <sub>24</sub> H <sub>23</sub> N <sub>5</sub> O <sub>4</sub>	445.1750	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
3-hydroxyfumiquinazoline A (226)	C <sub>24</sub> H <sub>23</sub> N <sub>5</sub> O <sub>5</sub>	461.1699	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
6-methoxyspirotryprostatin B (227)	C <sub>22</sub> H <sub>23</sub> N <sub>3</sub> O <sub>4</sub>	393.1689	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Spiro [5H,10H-dipyrrrolo[1,2- $\alpha$ :1',2'-d]pyrazine-2-(3H),2'-[2H]indole]-3',5,10(1'H)-trione (228)	C <sub>22</sub> H <sub>25</sub> N <sub>3</sub> O <sub>6</sub>	427.1743	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Pseurotin A (229)	C <sub>22</sub> H <sub>25</sub> NO <sub>8</sub>	431.1580	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Pseurotin A <sub>1</sub> (230)	C <sub>22</sub> H <sub>25</sub> NO <sub>8</sub>	431.1580	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Tryptoquivaline O (231)	C <sub>22</sub> H <sub>18</sub> N <sub>4</sub> O <sub>4</sub>	402.1328	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Fumifaclavine B (232)	C <sub>16</sub> H <sub>20</sub> N <sub>2</sub> O	256.1576	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Bisdethiobis(methylthio)gliotoxin (233)	C <sub>15</sub> H <sub>20</sub> N <sub>2</sub> O <sub>4</sub> S <sub>2</sub>	356.0864	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclo-(Pro-Gly) (234)	C <sub>7</sub> H <sub>10</sub> N <sub>2</sub> O <sub>2</sub>	154.0742	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclo-(Pro-Ala) (235)	C <sub>8</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub>	168.0899	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclo-(D-Pro-L-Ala) (236)	C <sub>8</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub>	168.0899	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclo-(Pro-Ser) (237)	C <sub>9</sub> H <sub>14</sub> N <sub>2</sub> O <sub>3</sub>	198.1004	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclo-(Ser-trans-4-OH-Pro) (238)	C <sub>9</sub> H <sub>14</sub> N <sub>2</sub> O <sub>4</sub>	214.0954	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclo-(Leu-4-OH-Pro) (239)	C <sub>12</sub> H <sub>20</sub> N <sub>2</sub> O <sub>3</sub>	240.1474	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclo-(Ala-trans-4-OH-Pro) (240)	C <sub>8</sub> H <sub>12</sub> N <sub>2</sub> O <sub>3</sub>	184.0848	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclo-(cis-OH-D-Pro-L-Phe) (241)	C <sub>14</sub> H <sub>16</sub> N <sub>2</sub> O <sub>3</sub>	260.1161	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclo-(Gly-Phe) (242)	C <sub>11</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub>	204.0899	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclo-(Pro-tans-4-OH-Pro) (243)	C <sub>10</sub> H <sub>14</sub> N <sub>2</sub> O <sub>3</sub>	210.1004	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Cyclo-(Gly-Ala) (244)	C <sub>5</sub> H <sub>8</sub> N <sub>2</sub> O <sub>2</sub>	128.0586	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Uracil (245)	C <sub>4</sub> H <sub>4</sub> N <sub>2</sub> O <sub>2</sub>	410.1478	<i>A. fumigatus</i> LN-4	<i>M. azedarach</i>	Stem bark	PD liquid medium	[32]
Rohitukine (246)	C <sub>16</sub> H <sub>19</sub> NO <sub>5</sub>	305.1263	<i>F. proliferatum</i> MTCC 9690	<i>D. binectariferum</i> <i>Hook.f.</i>	Bark	PDB	[61]
			<i>F. oxysporum</i> MTCC 11383	<i>D. binectariferum</i> <i>Hook.f.</i>	Leaves	Broth	[61]
			<i>F. solani</i> MTCC 11385	<i>D. binectariferum</i> <i>Hook.f.</i>	Fruit	Broth	[61]
			<i>F. oxysporum</i> MTCC 11384	<i>D. binectariferum</i> <i>Hook.f.</i>	Bark	Broth	[61]

			<i>G. fujikurai</i> MTCC 11382	<i>Amoora rohituka</i>	Bark	Broth	[61]
Rohitukine <i>N</i> -oxide (247)	C <sub>16</sub> H <sub>19</sub> NO <sub>5</sub>	321.1212	<i>F. oxysporum</i> MTCC 11383	<i>D. binectariferum</i> <i>Hook.f</i>	Leaves	Broth	[61]
			<i>F. solani</i> MTCC 11385	<i>D. binectariferum</i> <i>Hook.f</i>	Fruit	Broth	[61]
			<i>F. oxysporum</i> MTCC 11384	<i>D. binectariferum</i> <i>Hook.f</i>	Bark	Broth	[61]
			<i>G. fujikurai</i> MTCC 11382	<i>Amoora rohituka</i>	Bark	Broth	[61]
Flavopiridol (248)	C <sub>21</sub> H <sub>20</sub> ClNO <sub>5</sub>	401.1030	<i>F. oxysporum</i> MTCC 11383	<i>D. binectariferum</i> <i>Hook.f</i>	Leaves	Broth	[61]
			<i>F. solani</i> MTCC 11385	<i>D. binectariferum</i> <i>Hook.f</i>	Fruit	Broth	[61]
			<i>F. oxysporum</i> MTCC 11384	<i>D. binectariferum</i> <i>Hook.f</i>	Bark	Broth	[61]
			<i>G. fujikurai</i> MTCC 11382	<i>A. rohituka</i>	Bark	Broth	[61]
2-(furan-2-yl)-6-(2S,3S,4-trihydroxybutyl)pyrazine (249)	C <sub>12</sub> H <sub>14</sub> N <sub>2</sub> O <sub>4</sub>	250.0954	<i>J. endophytica</i> 161111	<i>X. granatum</i>	Root	Broth (glucose 2%, yeast extract 0.5%, peptone 0.5%, KNO <sub>3</sub> 1.5%, CaCO <sub>3</sub> 0.4%, and NaCl 0.4% (pH 7.2))	[62]
2-(furan-2-yl)-5-(2S,3S,4-trihydroxybutyl)pyrazine (250)	C <sub>12</sub> H <sub>14</sub> N <sub>2</sub> O <sub>4</sub>	250.0954	<i>J. endophytica</i> 161111	<i>X. granatum</i>	Root	Broth (glucose 2%, yeast extract 0.5%, peptone 0.5%, KNO <sub>3</sub> 1.5%, CaCO <sub>3</sub> 0.4%, and NaCl 0.4% (pH 7.2))	[62]

(S)-4-isobutyl-3-oxo-3,4-dihydro-1H-pyrrolo[2,1-c][1,4]oxazine-6-carbaldehyde (251)	C <sub>13</sub> H <sub>17</sub> NO <sub>3</sub>	235.1208	<i>J. endophytica</i> 161111	<i>X. granatum</i>	Root	Broth (glucose 2%, yeast extract 0.5%, peptone 0.5%, KNO <sub>3</sub> 1.5%, CaCO <sub>3</sub> 0.4%, and NaCl 0.4% (pH 7.2))	[62]
(S)-4-isopropyl-3-oxo-3,4-dihydro-1H-pyrrolo [2,1-c][1,4]oxazine-6-carbaldehyde (252)	C <sub>12</sub> H <sub>15</sub> NO <sub>3</sub>	221.1052	<i>J. endophytica</i> 161111	<i>X. granatum</i>	Root	Broth (glucose 2%, yeast extract 0.5%, peptone 0.5%, KNO <sub>3</sub> 1.5%, CaCO <sub>3</sub> 0.4%, and NaCl 0.4% (pH 7.2))	[62]
(4S)-4-(2-methylbutyl)-3-oxo-3,4-dihydro-1H-pyrrolo [2,1-c][1,4]oxazine-6-carbaldehyde (253)	C <sub>13</sub> H <sub>17</sub> NO <sub>3</sub>	235.1208	<i>J. endophytica</i> 161111	<i>X. granatum</i>	Root	Broth (glucose 2%, yeast extract 0.5%, peptone 0.5%, KNO <sub>3</sub> 1.5%, CaCO <sub>3</sub> 0.4%, and NaCl 0.4% (pH 7.2))	[62]
(S)-4-benzyl-3-oxo-3,4-dihydro-1H-pyrrolo[2,1-c] [1,4]oxazine-6-carbaldehyde (254)	C <sub>16</sub> H <sub>15</sub> NO <sub>3</sub>	269.1052	<i>J. endophytica</i> 161111	<i>X. granatum</i>	Root	Broth (glucose 2%, yeast extract 0.5%, peptone 0.5%, KNO <sub>3</sub> 1.5%, CaCO <sub>3</sub> 0.4%, and NaCl 0.4% (pH 7.2))	[62]
Flazin (255)	C <sub>18</sub> H <sub>14</sub> N <sub>2</sub> O <sub>4</sub>	322.0954	<i>J. endophytica</i> 161111	<i>X. granatum</i>	Root	Broth (glucose 2%, yeast extract 0.5%, peptone 0.5%, KNO <sub>3</sub> 1.5%, CaCO <sub>3</sub> 0.4%, and NaCl 0.4% (pH 7.2))	[62]
Perlyoline (256)	C <sub>17</sub> H <sub>14</sub> N <sub>2</sub> O <sub>2</sub>	278.1055	<i>J. endophytica</i> 161111	<i>X. granatum</i>	Root	Broth (glucose 2%, yeast extract 0.5%, peptone 0.5%, KNO <sub>3</sub> 1.5%, CaCO <sub>3</sub> 0.4%, and NaCl 0.4% (pH 7.2))	[62]
1-hydroxy-β-carboline (257)	C <sub>11</sub> H <sub>8</sub> N <sub>2</sub> O	184.0637	<i>J. endophytica</i> 161111	<i>X. granatum</i>	Root	Broth (glucose 2%, yeast extract 0.5%, peptone 0.5%, KNO <sub>3</sub> 1.5%, CaCO <sub>3</sub> 0.4%, and NaCl 0.4% (pH 7.2))	[62]

Lumichrome (258)	C <sub>12</sub> H <sub>10</sub> N <sub>4</sub> O <sub>2</sub>	242.0804	<i>J. endophytica</i> 161111	<i>X. granatum</i>	Root	Broth (glucose 2%, yeast extract 0.5%, peptone 0.5%, KNO <sub>3</sub> 1.5%, CaCO <sub>3</sub> 0.4%, and NaCl 0.4% (pH 7.2))	[62]
1H-indole-3-carboxaldehyde (259)	C <sub>9</sub> H <sub>7</sub> NO	145.0528	<i>J. endophytica</i> 161111	<i>X. granatum</i>	Root	Broth (glucose 2%, yeast extract 0.5%, peptone 0.5%, KNO <sub>3</sub> 1.5%, CaCO <sub>3</sub> 0.4%, and NaCl 0.4% (pH 7.2))	[62]
[14,15], 2-hydroxy-1-(1H-indol-3-yl)ethenone (260)	C <sub>10</sub> H <sub>9</sub> NO <sub>2</sub>	175.0633	<i>J. endophytica</i> 161111	<i>X. granatum</i>	Root	Broth (glucose 2%, yeast extract 0.5%, peptone 0.5%, KNO <sub>3</sub> 1.5%, CaCO <sub>3</sub> 0.4%, and NaCl 0.4% (pH 7.2))	[62]
5-(methoxymethyl)-1H-pyrrole-2-carbaldehyde (261)	C <sub>8</sub> H <sub>11</sub> NO	137.0841	<i>J. endophytica</i> 161111	<i>X. granatum</i>	Root	Broth (glucose 2%, yeast extract 0.5%, peptone 0.5%, KNO <sub>3</sub> 1.5%, CaCO <sub>3</sub> 0.4%, and NaCl 0.4% (pH 7.2))	[62]
Asperazine (262)	C <sub>40</sub> H <sub>36</sub> N <sub>6</sub> O <sub>4</sub>	664.2798	<i>Aspergillus</i> sp. KJ-9	<i>M. azedarach</i>	Stem Bark		[44]
(R)-3-hydroxybutanonitrile (263)	C <sub>4</sub> H <sub>7</sub> NO	85.0528	<i>Aspergillus</i> sp. KJ-9	<i>M. azedarach</i>	Stem Bark		[34]
3-hydroxy-2-methoxy-5-methylpyridin-2(1H)-one (264)	C <sub>7</sub> H <sub>9</sub> NO <sub>3</sub>	155.0582	<i>B. dothidea</i> KJ-1	<i>M. azedarach L.</i>	Stem	Rice	[34]
3-hydroxy-N-(1-hydroxy-3-methylpentan-2-yl)-5-oxohexanamide (265)	C <sub>12</sub> H <sub>23</sub> NO <sub>4</sub>	245.1627	<i>B. dothidea</i> KJ-1	<i>M. azedarach L.</i>	Stem	Rice	[34]
3-hydroxy-N-(1-hydroxy-4-methylpentan-2-yl)-5-oxohexanamide (266)	C <sub>12</sub> H <sub>23</sub> NO <sub>4</sub>	245.1627	<i>B. dothidea</i> KJ-1	<i>M. azedarach L.</i>	Stem	Rice	[34]
(2S,3aR,6S,7aS) -6-acetamido-octahydro-1,3-benzothiazol-2-yl 2-(adamantan-1-yl) acetamide (267)	C <sub>21</sub> H <sub>33</sub> N <sub>3</sub> O <sub>2</sub> S	391.2293	<i>Emericella</i> sp.	<i>A. indica A. Juss</i>	Twig	Liquid media containing 10 g glucose, 5 g peptone, 3 g malt extract, and 3 g yeast extract	[63]
<b>Nitro Compounds</b>							
3-nitropropionic acid (268)	C <sub>3</sub> H <sub>5</sub> NO <sub>4</sub>	119.0219	<i>Phomopsis longicolla</i> FJ2759	<i>T. elegans A. Juss</i> ssp. elegans	Leaves	BD broth	[28]

Fatty Acid & Sugars							
Fusaroside (269)	C <sub>34</sub> H <sub>54</sub> O <sub>13</sub>	670.3564	<i>Fusarium</i> sp. LN-11	<i>M. azedarach</i>	Leaves	Liquid Culture	[21]
Phalluside (270)	C <sub>44</sub> H <sub>81</sub> NO <sub>8</sub>	751.5962	<i>Fusarium</i> sp. LN-11	<i>M. azedarach</i>	Leaves	Liquid Culture	[21]
(9R,10R,7E)-6,9,10-trihydroxyoctadec-7-enoic acid (271)	C <sub>18</sub> H <sub>34</sub> O <sub>5</sub>	330.2406	<i>Fusarium</i> sp. LN-11	<i>M. azedarach</i>	Leaves	Liquid Culture	[21]
Porrigenic acid (272)	C <sub>18</sub> H <sub>30</sub> O <sub>4</sub>	310.2144	<i>Fusarium</i> sp. LN-11	<i>M. azedarach</i>	Leaves	Liquid Culture	[21]
(9Z)-2,3-dihydroxypropyl octadeca-9-enoate (273)	C <sub>21</sub> H <sub>40</sub> O <sub>4</sub>	356.2927	<i>Fusarium</i> sp. LN-11	<i>M. azedarach</i>	Leaves	Liquid Culture	[21]
Cerebroside C (274)	C <sub>39</sub> H <sub>71</sub> NO <sub>9</sub>	697.5129	<i>B. dothidea</i> KJ-1	<i>M. azedarach</i> L.	Stem	Rice	[44]
Eucalyptacid A (275)	C <sub>17</sub> H <sub>32</sub> O <sub>5</sub>	316.2250	<i>D. eucalyptorum</i> KY-9	<i>M. azedarach</i>	Leaves	Rice	[50]
Phomopene (276)	C <sub>10</sub> H <sub>18</sub> O <sub>3</sub>	186.1256	<i>D. eucalyptorum</i> KY-9	<i>M. azedarach</i>	Leaves	Rice	[50]

**Table S2.** Antimicrobial Activity of Compounds that have been evaluated against several fungi and bacteria.

Compounds	Antimicrobial	Ref.
Helvolic acid ( <b>4</b> )	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> (6.25), <i>A. solani</i> (12.5), <i>A. alternata</i> (6.25), <i>C. gloeosporioides</i> (6.25), <i>F. solani</i> (50), <i>F. oxysporum</i> f. sp. <i>niveum</i> (12.5), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (25), <i>G. saubinetii</i> (6.25); Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Pycnophorin ( <b>7</b> )	Antifungal activity (MIC: µM) <i>B. cinerea</i> (100), <i>A. solani</i> (6.25), <i>C. gloeosporioides</i> (200), <i>G. saubinetii</i> (200); Positive control (MIC: µM) carbendazim: 12.5, 1.57, 1.57, 6.25, respectively. hymexazol: 200, 6.25, >200, >200, respectively. toosendanin: 200, 6.25, 200, 200, respectively	[34]
	Antibacterial activity (MIC: µM) <i>E. coli</i> (200), <i>B. subtilis</i> (25), <i>S. aureus</i> (25), <i>B. cereus</i> (50); Positive control (MIC: µM) ampicillin: 1.57, 1.57, 1.57, 12.5, respectively streptomycin sulfate: 1.57, 1.57, 1.57, 1.57, respectively	
(1S,4S,5R,7R,10R,11R)-guaiane-5,10,11,12-tetraol ( <b>8</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (256), <i>A. niger</i> YM 3029 (128), <i>P. oryzae</i> YM 3051 (256), <i>F. avenaceum</i> YM 3065 (512), <i>H. compactum</i> YM 3077 (128); Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[35]
(1S,4S,5S,7R,10R,11S)-guaiane-1,10,11,12-tetraol ( <b>9</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (256), <i>A. niger</i> YM 3029 (128), <i>P. oryzae</i> YM 3051 (256), <i>F. avenaceum</i> YM 3065 (512), <i>H. compactum</i> YM 3077 (128) : Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[35]
(1S,4S,5R,7R,10R,11S)-guaiane-5,10,11,12-tetraol ( <b>10</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (32), <i>A. niger</i> YM 3029 (64), <i>P. oryzae</i> YM 3051 (256), <i>F. avenaceum</i> YM 3065 (>512), <i>H. compactum</i> YM 3077 (64); Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[35]
(1S,4S,5S,7R,10R,11R)-guaiane-1,10,11,12-tetraol ( <b>11</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (128), <i>A. niger</i> YM 3029 (256), <i>P. oryzae</i> YM 3051 (128), <i>F. avenaceum</i> YM 3065 (512), <i>H. compactum</i> YM 3077 (256); Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[35]
(1R,3S,4R,5S,7R,10R,11S)-guaiane-3,10,11,12-tetraol ( <b>12</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (64), <i>A. niger</i> YM 3029 (64), <i>P. oryzae</i> YM 3051 (256), <i>F. avenaceum</i> YM 3065 (>512), <i>H. compactum</i> YM 3077 (256); Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[35]
(1R,3R,4R,5S,7R,10R,11R)-guaiane-3,10,11,12-tetraol ( <b>13</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (64), <i>A. niger</i> YM 3029 (512), <i>P. oryzae</i> YM 3051 (256), <i>F. avenaceum</i> YM 3065 (>512), <i>H. compactum</i> YM 3077 (128) Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[35]
(1R,4S,5S,7S,9R,10S,11R)-guaiane-9,10,11,12-tetraol ( <b>14</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (128), <i>A. niger</i> YM 3029 (512), <i>P. oryzae</i> YM 3051 (128), <i>F. avenaceum</i> YM 3065 (512),	[35]

	<i>H. compactum</i> YM 3077 (128); Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	
(1 <i>R</i> ,4 <i>S</i> ,5 <i>S</i> ,7 <i>R</i> ,10 <i>R</i> ,11 <i>S</i> )-guaiane-10,11,12-triol ( <b>15</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (32), <i>A. niger</i> YM 3029 (128), <i>P. oryzae</i> YM 3051 (512), <i>F. avenaceum</i> YM 3065 (>512), <i>H. compactum</i> YM 3077 (256); Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[35]
(1 <i>R</i> ,4 <i>S</i> ,5 <i>S</i> ,7 <i>R</i> ,10 <i>R</i> ,11 <i>R</i> )-guaiane-10,11,12-triol ( <b>16</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (128), <i>A. niger</i> YM 3029 (256), <i>P. oryzae</i> YM 3051 (512), <i>F. avenaceum</i> YM 3065 (>512), <i>H. compactum</i> YM 3077 (128); Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[35]
14 <i>α</i> ,16-epoxy-18-norisopimar-7-en-4 <i>α</i> -ol ( <b>17</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (128), <i>A. niger</i> YM 3029 (>512), <i>P. oryzae</i> YM 3051 (256), <i>F. avenaceum</i> YM 3065 (512), <i>H. compactum</i> YM 3077 (256); Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[35]
16-O-sulfo-18-norisopimar-7-en-4 <i>α</i> ,16-diol ( <b>18</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (64), <i>A. niger</i> YM 3029 (64), <i>P. oryzae</i> YM 3051 (256), <i>F. avenaceum</i> YM 3065 (64), <i>H. compactum</i> YM 3077 (128); Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[35]
9-deoxy-hymatoxin A ( <b>19</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (64), <i>A. niger</i> YM 3029 (128), <i>P. oryzae</i> YM 3051 (32), <i>F. avenaceum</i> YM 3065 (128), <i>H. compactum</i> YM 3077 (64); Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[35]
guaiane-2,10,11,12-tetraol ( <b>20</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (16), <i>A. niger</i> YM 3029 (32), <i>P. oryzae</i> YM 3051 (16), <i>F. avenaceum</i> YM 3065 (64), <i>H. compactum</i> YM 3077 (64); Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[36]
guaiane-2,4,10,11,12-pentaol ( <b>21</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (512), <i>A. niger</i> YM 3029 (256), <i>P. oryzae</i> YM 3051 (128), <i>F. avenaceum</i> YM 3065 (>512), <i>H. compactum</i> YM 3077 (256); Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[36]
guaiane-4,5,10,11,12-pentaol ( <b>22</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (128), <i>A. niger</i> YM 3029 (>512), <i>P. oryzae</i> YM 3051 (256), <i>F. avenaceum</i> YM 3065 (>512), <i>H. compactum</i> YM 3077 (256); Positive control (MIC: µg/mL) nystatin: 8, 8, 8, 16, 8, respectively	[36]
guaiane-1,5,10,11,12-pentaol ( <b>23</b> )	Antifungal activity (MIC: µg/mL) <i>C. albicans</i> YM 2005 (64), <i>A. niger</i> YM 3029 (64), <i>P. oryzae</i> YM 3051 (256), <i>F. avenaceum</i> YM 3065 (>512), <i>H. compactum</i> YM 3077 (64);	[36]

	Positive control (MIC: $\mu\text{g/mL}$ ) nystatin: 8, 8, 8, 16, 8, respectively	
11-methoxyguaiane-4,10,12-triol ( <b>24</b> )	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>C. albicans</i> YM 2005 (32), <i>A. niger</i> YM 3029 (256), <i>P. oryzae</i> YM 3051 (32), <i>F. avenaceum</i> YM 3065 (>512), <i>H. compactum</i> YM 3077 (64)	[36]
	Positive control (MIC: $\mu\text{g/mL}$ ) nystatin: 8, 8, 8, 16, 8, respectively	
( <i>R,R</i> , <i>S,S</i> )-7,10-epoxysydonic acid ( <b>47</b> )	Antibacterial activity against <i>S. aureus</i> ATCC 25923 with $\text{IC}_{50}$ value of >50 $\mu\text{M}$ ; Positive control ( $\text{IC}_{50}$ : $\mu\text{M}$ ) penicillin: 23.6, rocephin: 1.3	[40]
( <i>S,S</i> , <i>S,S</i> )-7,10-epoxysydonic acid ( <b>48</b> )	Antibacterial activity against <i>S. aureus</i> ATCC 25923 with $\text{IC}_{50}$ value of 32.2 $\mu\text{M}$ ; Positive control ( $\text{IC}_{50}$ : $\mu\text{M}$ ) penicillin: 23.6, rocephin: 1.3	[40]
( <i>R,R</i> , <i>S,S</i> )-7,12-epoxysydonic acid ( <b>49</b> )	Antibacterial activity against <i>S. aureus</i> ATCC 25923 with $\text{IC}_{50}$ value of 36.0 $\mu\text{M}$ ; Positive control ( $\text{IC}_{50}$ : $\mu\text{M}$ ), penicillin: 23.6, rocephin: 1.3	[40]
( <i>S,S</i> , <i>S,S</i> )-7,12-epoxysydonic acid ( <b>50</b> )	Antibacterial activity against <i>S. aureus</i> ATCC 25923 with $\text{IC}_{50}$ value of >50 $\mu\text{M}$ ; Positive control ( $\text{IC}_{50}$ : $\mu\text{M}$ ), penicillin: 23.6, rocephin: 1.3	[40]
7-deoxy-7,14-didehydro-12-hydroxysydonic acid ( <b>51</b> )	Antibacterial activity against <i>S. aureus</i> ATCC 25923 with $\text{IC}_{50}$ value of 41.9 $\mu\text{M}$ Positive control ( $\text{IC}_{50}$ : $\mu\text{M}$ ) penicillin: 23.6, rocephin: 1.3	[40]
( <i>Z</i> )-7-deoxy-7,8-didehydro-12-hydroxysydonic acid ( <b>52</b> )	Antibacterial activity against <i>S. aureus</i> ATCC 25923 with $\text{IC}_{50}$ value of >50 $\mu\text{M}$ ; Positive control ( $\text{IC}_{50}$ : $\mu\text{M}$ ) penicillin: 23.6, rocephin: 1.3	[40]
( <i>E</i> )-7-deoxy-7,8-didehydro-12-hydroxysydonic acid ( <b>53</b> )	Antibacterial activity against <i>S. aureus</i> ATCC 25923 with $\text{IC}_{50}$ value of 31.5 $\mu\text{M}$ ; Positive control ( $\text{IC}_{50}$ : $\mu\text{M}$ ) penicillin: 23.6, rocephin: 1.3	[40]
(+)-1-hydroxyboivinianic acid ( <b>54</b> )	Antibacterial activity against <i>S. aureus</i> ATCC 25923 with $\text{IC}_{50}$ value of >50 $\mu\text{M}$ ; Positive control ( $\text{IC}_{50}$ : $\mu\text{M}$ ) penicillin: 23.6, rocephin: 1.3	[40]
engyodontiumone I ( <b>55</b> )	Antibacterial activity against <i>S. aureus</i> ATCC 25923 with $\text{IC}_{50}$ value of 33.4 $\mu\text{M}$ ; Positive control ( $\text{IC}_{50}$ : $\mu\text{M}$ ) penicillin: 23.6, rocephin: 1.3	[40]
(+)-sydonic acid ( <b>56</b> )	Antibacterial activity against <i>S. aureus</i> ATCC 25923 with $\text{IC}_{50}$ value of >50 $\mu\text{M}$ ; Positive control ( $\text{IC}_{50}$ : $\mu\text{M}$ ) penicillin: 23.6, rocephin: 1.3	[40]
(+)-hydroxysydonic acid ( <b>57</b> )	Antibacterial activity against <i>S. aureus</i> ATCC 25923 with $\text{IC}_{50}$ value of 34.0 $\mu\text{M}$ , Positive control ( $\text{IC}_{50}$ : $\mu\text{M}$ ) penicillin: 23.6, rocephin: 1.3	[40]
(-)-(7 <i>S</i> )-10-hydroxysydonic acid ( <b>58</b> )	Antibacterial activity against <i>S. aureus</i> ATCC 25923 with $\text{IC}_{50}$ value of 36.3 $\mu\text{M}$ ; Positive control ( $\text{IC}_{50}$ : $\mu\text{M}$ ) penicillin: 23.6; rocephin: 1.3	[40]
Verruculogen ( <b>209</b> )	Antibacterial activity Bacteriostatic effect for <i>E. coli</i> at a dosage of 250 $\mu\text{g/mL}$ . Control: penicillin, vancomycin, and tetracycline tested at a conc. of 25 $\mu\text{g/mL}$ Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> (6.25), <i>A. solani</i> (12.5), <i>A. alternata</i> (6.25), <i>C. gloeosporioides</i> (6.25), <i>F. solani</i> (50), <i>F. oxysporum</i> f. sp. <i>niveum</i> (12.5), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (25), <i>G. saubinetii</i> (6.25) Positive control (MIC: $\mu\text{g/mL}$ )	[46]

	carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	
Fumitremorgin C (212)	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> (12.5), <i>A. solani</i> (25), <i>A. alternata</i> (12.5), <i>C. gloeosporioides</i> (12.5), <i>F. solani</i> (50), <i>F. oxysporum</i> f. sp. <i>niveum</i> (25), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (50), <i>G. saubinettii</i> (12.5) Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Cyclotryprostatin A (213)	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> (50), <i>A. solani</i> (50), <i>A. alternata</i> (25), <i>C. gloeosporioides</i> (50), <i>F. solani</i> (>100), <i>F. oxysporum</i> f. sp. <i>niveum</i> (50), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (100), <i>G. saubinettii</i> (50) Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Cyclotryprostatin B (214)	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> (12.5), <i>A. solani</i> (12.5), <i>A. alternata</i> (12.5), <i>C. gloeosporioides</i> (12.5), <i>F. solani</i> (25), <i>F. oxysporum</i> f. sp. <i>niveum</i> (12.5), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (25), <i>G. saubinettii</i> (12.5) Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Verrulocogen TR-2 (215)	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> (12.5), <i>A. solani</i> (12.5), <i>A. alternata</i> (6.25), <i>C. gloeosporioides</i> (12.5), <i>F. solani</i> (25), <i>F. oxysporum</i> f. sp. <i>niveum</i> (12.5), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (25), <i>G. saubinettii</i> (12.5) Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
12β-hydroxyverruculogen TR-2 (216)	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> (25), <i>A. solani</i> (25), <i>A. alternata</i> (25), <i>C. gloeosporioides</i> (25), <i>F. solani</i> (50), <i>F. oxysporum</i> f. sp. <i>niveum</i> (25), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (25), <i>G. saubinettii</i> (25) Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
12β-hydroxy-13α-methoxyverruculogen TR-2 (217)	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> (6.25), <i>A. solani</i> (6.25), <i>A. alternata</i> (6.25), <i>C. gloeosporioides</i> (6.25), <i>F. solani</i> (25), <i>F. oxysporum</i> f. sp. <i>niveum</i> (12.5), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (25), <i>G. saubinettii</i> (6.25) Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Fumitremorgin B (218)	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> (6.25), <i>A. solani</i> (6.25), <i>A. alternata</i> (6.25), <i>C. gloeosporioides</i> (12.5), <i>F. solani</i> (100), <i>F. oxysporum</i> f. sp. <i>niveum</i> (25), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (50), <i>G. saubinettii</i> (12.5)	[32]

	Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	
Tryprostatin A (219)	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100) Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Cyclo-L-tryptophyl-L-proline (220)	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100) Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Terezine D (221)	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100) Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Fumiquinazoline F (222)	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> (12.5), <i>A. solani</i> (25), <i>A. alternata</i> (12.5), <i>C. gloeosporioides</i> (12.5), <i>F. solani</i> (50), <i>F. oxysporum</i> f. sp. <i>niveum</i> (25), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (50), <i>G. saubinetii</i> (12.5) Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Fumiquinazoline G (223)	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> (12.5), <i>A. solani</i> (25), <i>A. alternata</i> (12.5), <i>C. gloeosporioides</i> (12.5), <i>F. solani</i> (50), <i>F. oxysporum</i> f. sp. <i>niveum</i> (50), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (50), <i>G. saubinetii</i> (12.5) Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Fumiquinazoline D (224)	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> (25), <i>A. solani</i> (25), <i>A. alternata</i> (25), <i>C. gloeosporioides</i> (25), <i>F. solani</i> (>100), <i>F. oxysporum</i> f. sp. <i>niveum</i> (50), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (50), <i>G. saubinetii</i> (25) Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Fumiquinazoline A (225)	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> (12.5), <i>A. solani</i> (12.5), <i>A. alternata</i> (12.5), <i>C. gloeosporioides</i> (12.5), <i>F. solani</i> (50), <i>F. oxysporum</i> f. sp. <i>niveum</i> (25), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (50), <i>G. saubinetii</i> (12.5)	[32]

	Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	
3-hydroxyfumiquinazoline A (226)	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> (12.5), <i>A. solani</i> (12.5), <i>A. alternata</i> (12.5), <i>C. gloeosporioides</i> (12.5), <i>F. solani</i> (100), <i>F. oxysporum</i> f. sp. <i>niveum</i> (50), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (50), <i>G. saubinetii</i> (12.5) Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
6-methoxyspirotryprostatin B (227)	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100) Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Spiro [5H,10H-dipyrrolo[1,2- $\alpha$ :1',2'-d]pyrazine-2-(3H),2'-[2H]indole]-3',5,10(1'H)-trione (228)	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100) Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Pseurotin A (229)	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100) Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Pseurotin A <sub>1</sub> (230)	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100) Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Trypt quoivaline O (231)	Antifungal activity (MIC: $\mu\text{g/mL}$ ) <i>B. cinerea</i> (25), <i>A. solani</i> (12.5), <i>A. alternata</i> (25), <i>C. gloeosporioides</i> (100), <i>F. solani</i> (>100), <i>F. oxysporum</i> f. sp. <i>niveum</i> (>100), <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> (>100), <i>G. saubinetii</i> (50) Positive control (MIC: $\mu\text{g/mL}$ ) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Fumifaclavine B (232)	Antifungal activity (MIC: $\mu\text{g/mL}$ )	[32]

	B. cinerea, A. solani, A. alternata, C. gloeosporioides, Fusarium solani, F. oxysporum f. sp. niveum, F. oxysporum f. sp. vasinfectum, G. saubinetii (>100) Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Bisdethiobis(methylthio)gliotoxin (233)	Antifungal activity (MIC: µg/mL) B. cinerea, A. solani, A. alternata, C. gloeosporioides, Fusarium solani, F. oxysporum f. sp. niveum, F. oxysporum f. sp. vasinfectum, G. saubinetii (>100) Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Cyclo-(Pro-Gly) (234)	Antifungal activity (MIC: µg/mL) B. cinerea, A. solani, A. alternata, C. gloeosporioides, Fusarium solani, F. oxysporum f. sp. niveum, F. oxysporum f. sp. vasinfectum, G. saubinetii (>100) Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Cyclo-(Pro-Ala) (235)	Antifungal activity (MIC: µg/mL) B. cinerea, A. solani, A. alternata, C. gloeosporioides, Fusarium solani, F. oxysporum f. sp. niveum, F. oxysporum f. sp. vasinfectum, G. saubinetii (>100) Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Cyclo-(D-Pro-L-Ala) (236)	Antifungal activity (MIC: µg/mL) B. cinerea, A. solani, A. alternata, C. gloeosporioides, Fusarium solani, F. oxysporum f. sp. niveum, F. oxysporum f. sp. vasinfectum, G. saubinetii (>100) Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Cyclo-(Pro-Ser) (237)	Antifungal activity (MIC: µg/mL) B. cinerea, A. solani, A. alternata, C. gloeosporioides, Fusarium solani, F. oxysporum f. sp. niveum, F. oxysporum f. sp. vasinfectum, G. saubinetii (>100) Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Cyclo-(Ser-trans-4-OH-Pro) (238)	Antifungal activity (MIC: µg/mL) B. cinerea, A. solani, A. alternata, C. gloeosporioides, Fusarium solani, F. oxysporum f. sp. niveum, F. oxysporum f. sp. vasinfectum, G. saubinetii (>100) Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	[32]
Cyclo-(Leu-4-OH-Pro) (239)	Antifungal activity (MIC: µg/mL)	[32]

	<i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100)	
	Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	
Cyclo-(Ala-trans-4-OH-Pro) (240)	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100)	[32]
	Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	
Cyclo-(cis-OH-D-Pro-L-Phe) (241)	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100)	[32]
	Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	
Cyclo-(Gly-Phe) (242)	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100)	[32]
	Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	
Cyclo-(Pro-tans-4-OH-Pro) (243)	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100)	[32]
	Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	
Cyclo-(Gly-Ala) (244)	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100)	[32]
	Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	
Uracil (245)	Antifungal activity (MIC: µg/mL) <i>B. cinerea</i> , <i>A. solani</i> , <i>A. alternata</i> , <i>C. gloeosporioides</i> , <i>Fusarium solani</i> , <i>F. oxysporum</i> f. sp. <i>niveum</i> , <i>F. oxysporum</i> f. sp. <i>vasinfectum</i> , <i>G. saubinetii</i> (>100)	[32]
	Positive control (MIC: µg/mL) carbendazim: 12.5, 12.5, 6.25, 6.25, 25, 12.5, 25, 6.25, respectively hymexazol: 12.5, 12.5, 12.5, 12.5, 50, 12.5, 2.5, 12.5, respectively	

**Table S3.** Cytotoxic Activity of compounds (**165–174**) against Several Cells [59].

Cell	Compound										
	165	166	167	168	169	170	171	172	173	174	Cont.
A375 (IC <sub>50</sub> μM)	>100	>100	34.4	47.4	48.5	71.2	18.0	72.9	41.7	42	18.1
AGS (IC <sub>50</sub> μM)	>100	80.2	21.8	94.2	69.8	82.2	91.5	55.0	27.4	92.4	15.4
HCT-8 (IC <sub>50</sub> μM)	>100	62.2	>100	7.5	4.4	4.2	1.0	0.3	4.7	0.6	22.0
HCT-8/T (IC <sub>50</sub> μM)	>100	64.3	11.2	8.6	6.4	6.5	1.5	1.0	7.2	0.8	28.2
A549 (IC <sub>50</sub> μM)	>100	42.9	27.6	6.4	4.0	3.3	1.0	0.6	2.0	0.6	12.1
MDA-MB-231(IC <sub>50</sub> μM)	>100	62.8	44.6	3.4	6.3	5.5	7.5	1.0	3.7	1.0	6.3
SMMC-7721 (IC <sub>50</sub> μM)	>100	87.4	29.3	>100	76.0	99.8	>100	68.5	50.8	>100	10.7
A2780 (IC <sub>50</sub> μM)	>100	61.1	8.6	7.1	3.8	<1	<1	<1	<1	<1	8.5