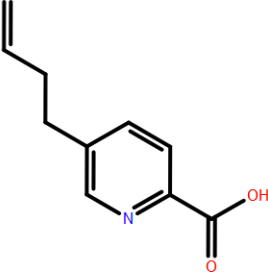
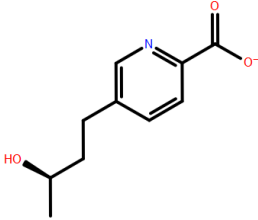
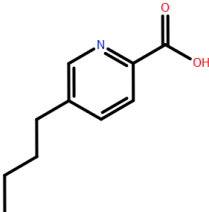
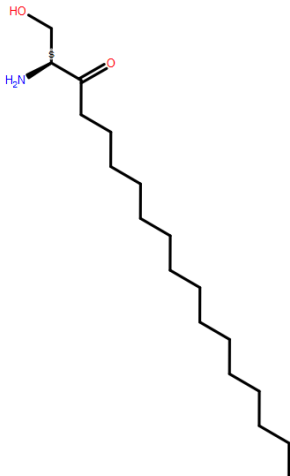
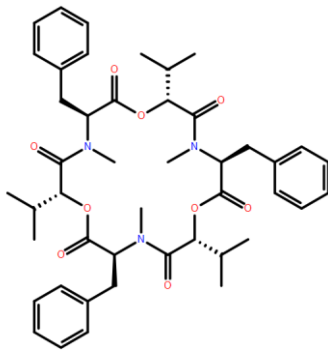


**Supplementary File 2**  
**Chemical structures of identified compounds**

**Table S1**

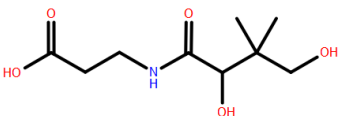
Metabolites identified from *F. oxysporum* MGK13.

No.	Proposed ID	Formula	Structure
1	Dehydrofusaric acid	C <sub>10</sub> H <sub>11</sub> NO <sub>2</sub>	
2	Fusarinolic acid	C <sub>10</sub> H <sub>13</sub> NO <sub>3</sub>	
3	Fusaric acid	C <sub>10</sub> H <sub>13</sub> NO <sub>2</sub>	

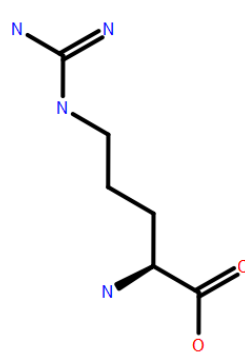
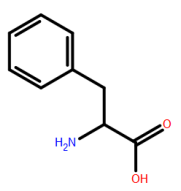
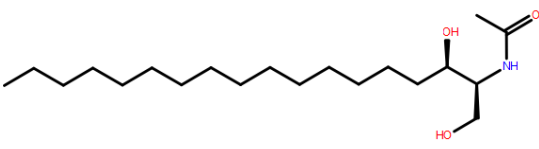
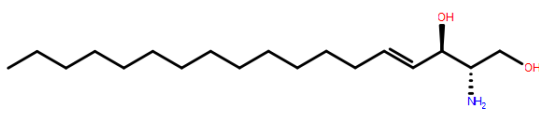
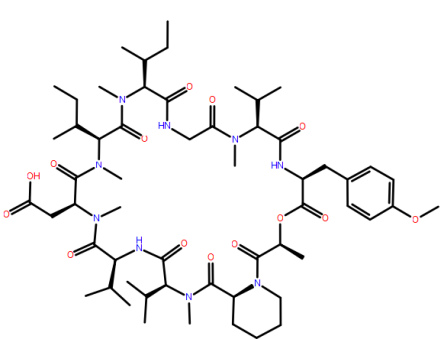
4	3-Dehydrosphinganine	$C_{18}H_{37}NO_2$	
5	Beauvericin	$C_{45}H_{57}N_3O_9$	

**Table S2**

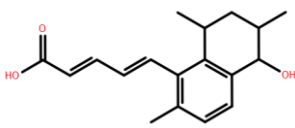
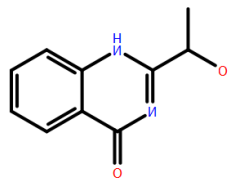
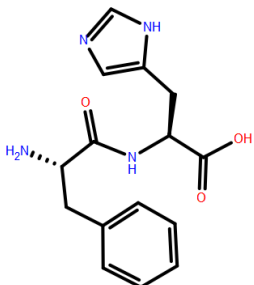
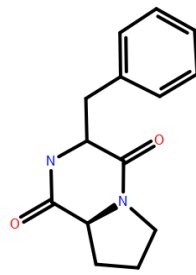
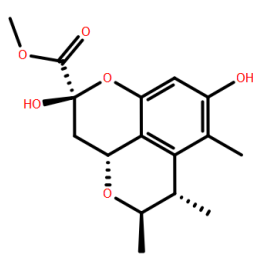
Metabolites from *M. circinelloides* MGK14.

No.	Proposed ID	Formula	Structure
6	Pantothenic acid	$C_9H_{17}NO_5$	

**Table S3**Metabolites from *C. eragrosticola* MGK20.

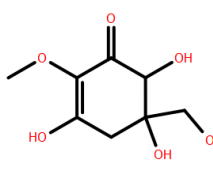
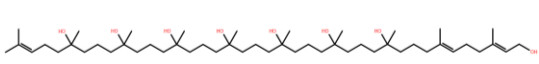
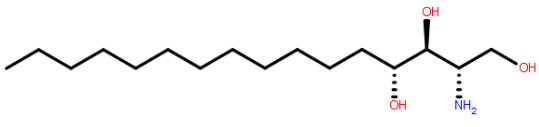
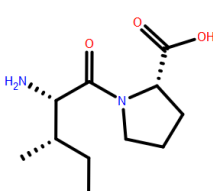
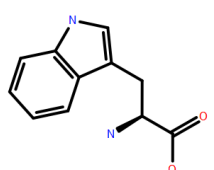
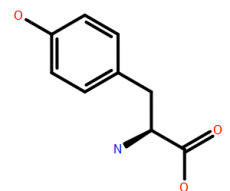
No.	Proposed ID	Formula	Structure
7	L-Arginine	C <sub>6</sub> H <sub>14</sub> N <sub>4</sub> O <sub>2</sub>	 <p>The structure of L-Arginine shows a guanidino group (C(=N)N) attached to a propyl chain, which is further attached to a chiral center. This chiral center is also bonded to a hydrogen atom and a carboxylate group (COO-).</p>
8	L-Phenylalanine	C <sub>9</sub> H <sub>11</sub> NO <sub>2</sub>	 <p>The structure of L-Phenylalanine features a benzene ring attached to a CH2 group, which is connected to a chiral center. This chiral center is also bonded to a hydrogen atom, an amino group (NH2), and a carboxylic acid group (COOH).</p>
9	N-Acetylsphinganine	C <sub>20</sub> H <sub>41</sub> NO <sub>3</sub>	 <p>The structure of N-Acetylsphinganine consists of a long hydrocarbon chain (sphingosine backbone) with a hydroxyl group (OH) and an N-acetyl group (NHCOCH3) attached to the chain.</p>
10	Sphingosine	C <sub>18</sub> H <sub>37</sub> NO <sub>2</sub>	 <p>The structure of Sphingosine shows a long hydrocarbon chain with a double bond, a hydroxyl group (OH), and an amino group (NH2) attached to the chain.</p>
11	Antibiotic BK230	C <sub>57</sub> H <sub>91</sub> N <sub>9</sub> O <sub>14</sub>	 <p>The structure of Antibiotic BK230 is a complex macrocyclic molecule with multiple amide bonds, hydroxyl groups, and a piperidine ring system.</p>

**Table S4**Metabolites from *P. antarcticum* MGK31.

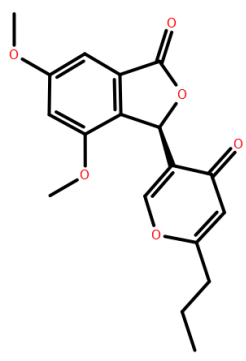
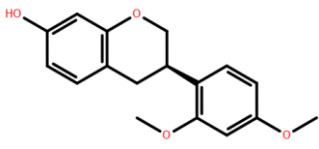
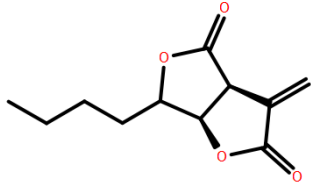
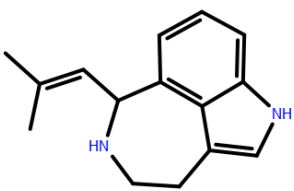
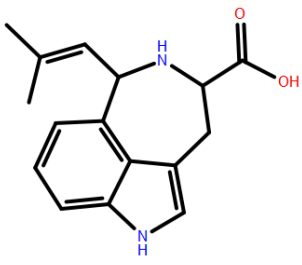
No.	Proposed ID	Formula	Structure
12	Arohynapene A	C <sub>18</sub> H <sub>22</sub> O <sub>3</sub>	
13	Chrysogine	C <sub>10</sub> H <sub>10</sub> N <sub>2</sub> O <sub>2</sub>	
14	L-Phe-L-His	C <sub>15</sub> H <sub>18</sub> N <sub>4</sub> O <sub>3</sub>	
15	Cyclo(L-Phe-L-Pro)	C <sub>14</sub> H <sub>16</sub> N <sub>2</sub> O <sub>2</sub>	
16	Penicitrinol P	C <sub>16</sub> H <sub>20</sub> O <sub>6</sub>	

17	Trans-Resorcylyde	$C_{16}H_{18}O_5$	
18	Penexanthone B	$C_{19}H_{20}O_8$	
19	Cladosporin	$C_{16}H_{20}O_5$	
20	Penicisochroman A	$C_{16}H_{18}O_4$	
21	Antibiotic TAN 1446A	$C_{17}H_{22}O_5$	
22	Chrysogeside C	$C_{40}H_{73}NO_9$	

**Table S5**Metabolites from *C. rogersoniana* MGK33.

No.	Proposed ID	Formula	Structure
23	Gadusol	C <sub>8</sub> H <sub>12</sub> O <sub>6</sub>	
24	Bionectin F	C <sub>50</sub> H <sub>96</sub> O <sub>8</sub>	
25	C16 Phytosphingosine	C <sub>16</sub> H <sub>35</sub> NO <sub>3</sub>	
26	L-Ile-L-Pro	C <sub>11</sub> H <sub>20</sub> N <sub>2</sub> O <sub>3</sub>	
27	L-Tryptophan	C <sub>11</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub>	
28	L-Tyrosine	C <sub>9</sub> H <sub>11</sub> NO <sub>3</sub>	

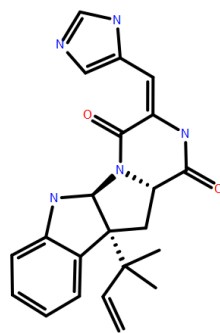
**Table S6**Metabolites from *P. expansum* MGK42.

No.	Proposed ID	Formula	Structure
29	Dihydrovermistatin	C <sub>18</sub> H <sub>18</sub> O <sub>6</sub>	 <p>The structure of Dihydrovermistatin is a complex polycyclic molecule. It features a central benzene ring fused to a five-membered ring containing an oxygen atom and a carbonyl group. This central system is further substituted with two methoxy groups on the benzene ring and a side chain consisting of a furan ring fused to a five-membered ring with a carbonyl group, which is in turn attached to a propyl chain.</p>
30	Sativan	C <sub>17</sub> H <sub>18</sub> O <sub>4</sub>	 <p>The structure of Sativan is a biphenyl derivative. It consists of two benzene rings connected by a methylene bridge. One of the benzene rings has a hydroxyl group and a methoxy group, while the other has two methoxy groups.</p>
31	Canadensolide	C <sub>11</sub> H <sub>14</sub> O <sub>4</sub>	 <p>The structure of Canadensolide is a bicyclic molecule. It features a five-membered ring fused to a six-membered ring, both containing oxygen atoms. The structure includes a carbonyl group, a methyl group, and a propyl chain.</p>
32	Aurantioclavine	C <sub>15</sub> H <sub>18</sub> N <sub>2</sub>	 <p>The structure of Aurantioclavine is a complex polycyclic molecule. It features a central benzene ring fused to a five-membered ring containing a nitrogen atom. The structure includes a methyl group, a propyl chain, and a nitrogen atom labeled 'HN'.</p>
33	Clavicipitic acid	C <sub>16</sub> H <sub>18</sub> N <sub>2</sub> O <sub>2</sub>	 <p>The structure of Clavicipitic acid is a complex polycyclic molecule. It features a central benzene ring fused to a five-membered ring containing a nitrogen atom. The structure includes a methyl group, a propyl chain, and a carboxylic acid group labeled 'OH'.</p>

---

34 Roquefortine C

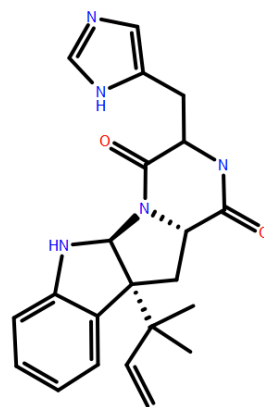
$C_{22}H_{23}N_5O_2$



---

35 Roquefortine D

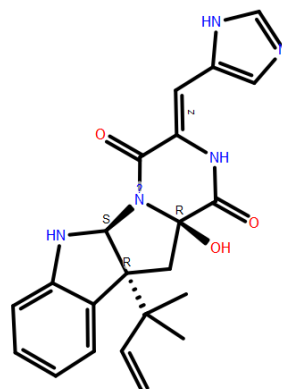
$C_{22}H_{25}N_5O_2$



---

36 (16R)-Hydroxyroquefortine C

$C_{22}H_{23}N_5O_3$

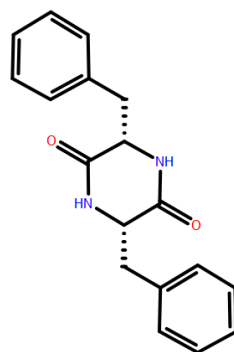




---

37 Cyclo(L-Phe-L-Phe)

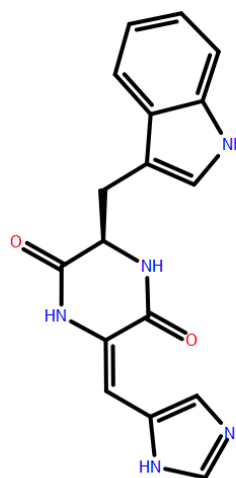
$C_{18}H_{18}N_2O_2$



---

38 Dehydrohistidyl-tryptophanyl-diketopiperazine

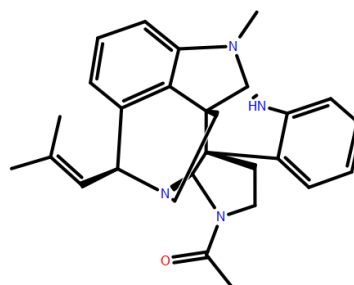
$C_{17}H_{15}N_5O_2$



---

39 Communesin E

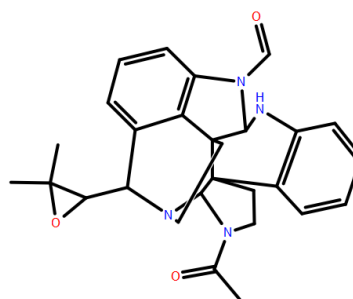
$C_{27}H_{30}N_4O_2$



---

40 Commnesin 470

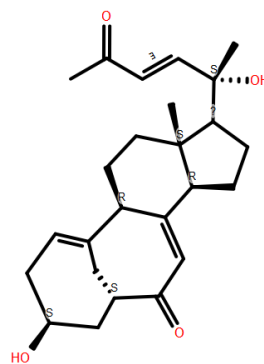
$C_{27}H_{34}O_7$



---

41 24-Oxocyclocitrinol

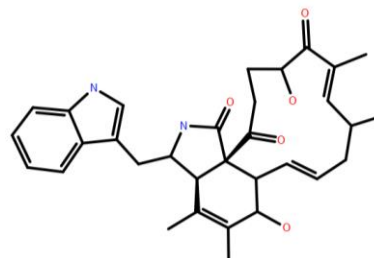
$C_{25}H_{34}O_4$



---

42 Chaetoglobosin E

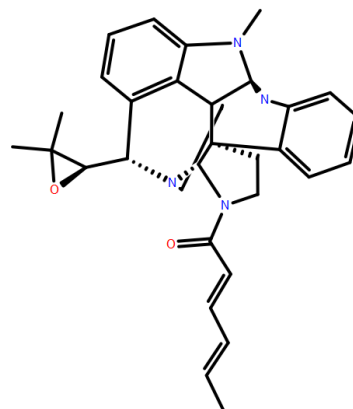
$C_{32}H_{38}N_2O_5$



---

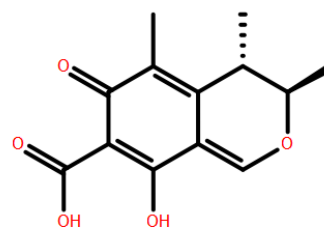
43 Commnesin B

$C_{32}H_{36}N_4O_2$



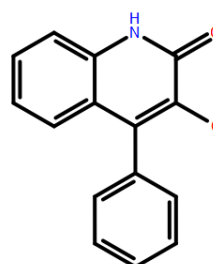
44 Citrinin

$C_{13}H_{14}O_5$



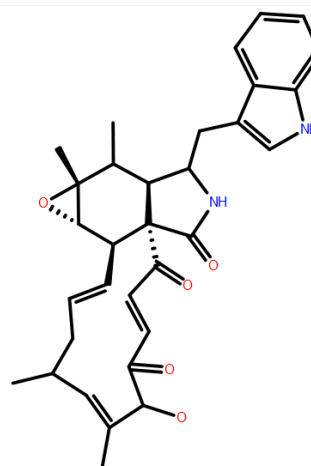
45 Viridicatin

$C_{15}H_{11}NO_2$



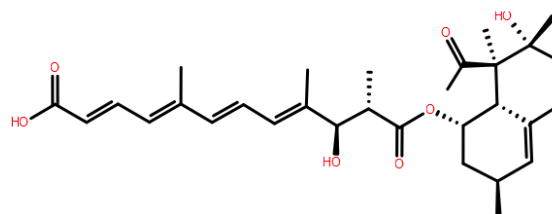
46 Chaetoglobosin A

$C_{32}H_{36}N_2O_5$



47 Deformylcalbistrin A

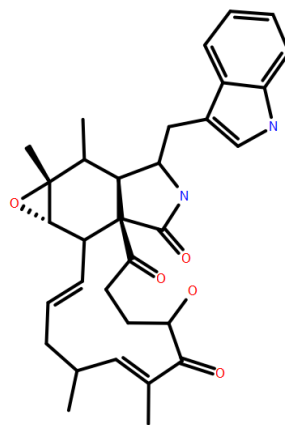
$C_{30}H_{40}O_7$



---

48 Chaetoglobosin F

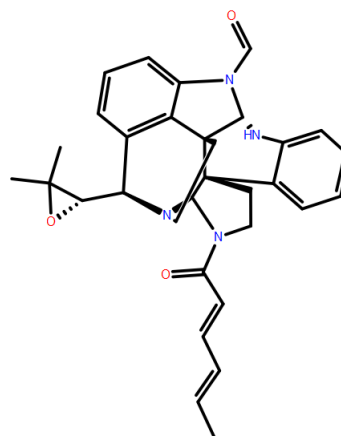
$C_{32}H_{38}N_2O_5$



---

49 Communesin D

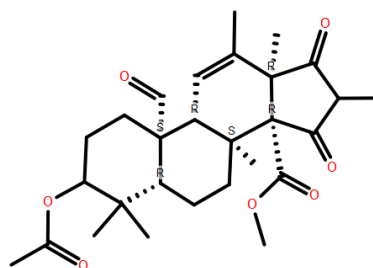
$C_{32}H_{34}N_4O_3$



---

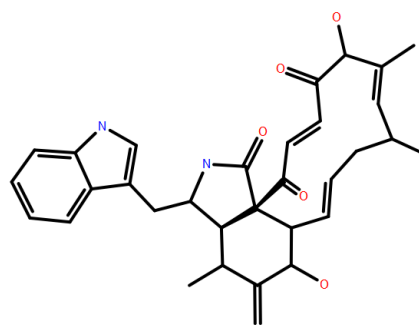
50 Andrastin A

$C_{28}H_{38}O_7$



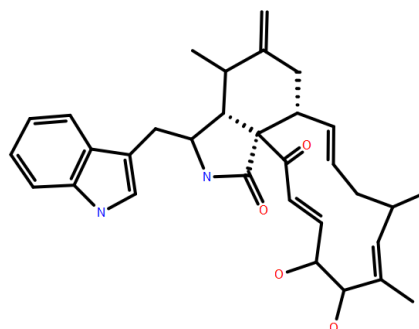
51 Chaetoglobosin D

$C_{32}H_{36}N_2O_5$



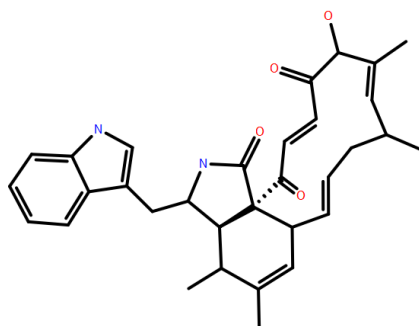
52 Cytoglobosin D

$C_{32}H_{38}N_2O_4$



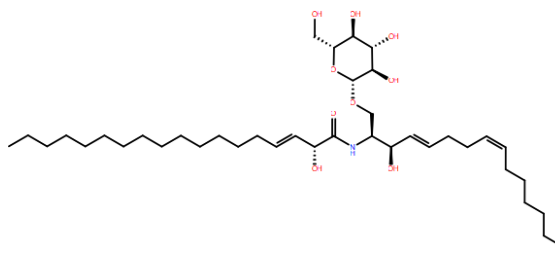
53 Chaetoglobosin J

$C_{32}H_{36}N_2O_4$

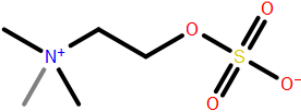
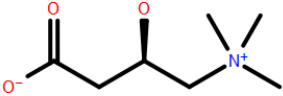
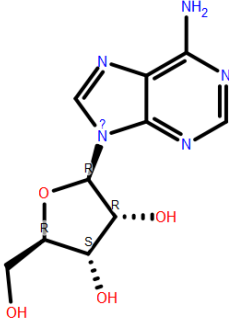
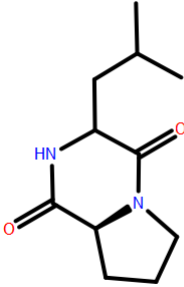
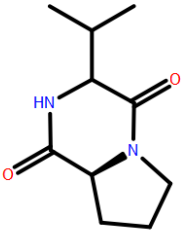


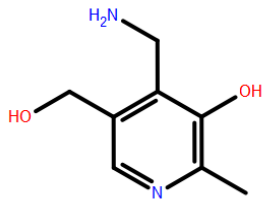
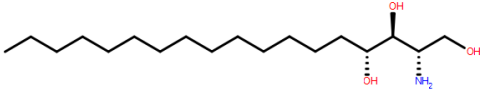
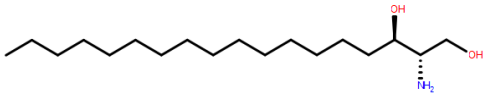
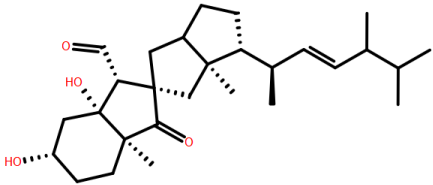
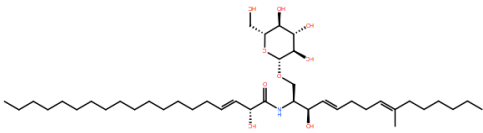
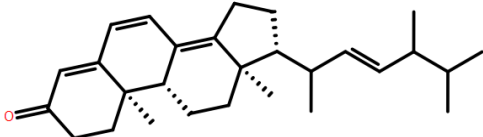
54 Chrysogeside A

$C_{40}H_{73}NO_9$



**Table S7.**  
Metabolites common to two or more fungal isolates.

No.	Proposed ID	Formula	Metabolite occurrence*	Structure
55	Choline sulfate	C <sub>5</sub> H <sub>13</sub> NO <sub>4</sub> S	MGK13 MGK20 MGK31	
56	L-Carnitine	C <sub>7</sub> H <sub>15</sub> NO <sub>3</sub>	MGK13 MGK14 MGK20 MGK31 MGK42	
57	Adenosine	C <sub>10</sub> H <sub>13</sub> N <sub>5</sub> O <sub>4</sub>	MGK20 MGK33	
58	Cyclo(L-Leu-L-Pro)	C <sub>11</sub> H <sub>18</sub> N <sub>2</sub> O <sub>2</sub>	MGK31 MGK33	
59	Cyclo(L-Pro-L-Val)	C <sub>10</sub> H <sub>16</sub> N <sub>2</sub> O <sub>2</sub>	MGK20 MGK31	

60	Pyridoxamine	C <sub>8</sub> H <sub>12</sub> N <sub>2</sub> O <sub>2</sub>	MGK20 MGK31	
61	Phytosphingosine	C <sub>18</sub> H <sub>39</sub> NO <sub>3</sub>	MGK13 MGK14 MGK20 MGK31 MGK42	
62	Sphinganine	C <sub>18</sub> H <sub>39</sub> NO <sub>2</sub>	MGK13 MGK14 MGK20 MGK31 MGK42	
63	Citreospirosteroid	C <sub>28</sub> H <sub>44</sub> O <sub>4</sub>	MGK31 MGK42	
64	Chrysoreside B	C <sub>41</sub> H <sub>75</sub> NO <sub>9</sub>	MGK31 MGK42	
65	Ergosta-4,6,8(14),22-tetraen-3-one	C <sub>28</sub> H <sub>40</sub> O	MGK13 MGK31	

\*Abbreviations represent fungal isolates as follows: **MGK13** = *F. oxysporum* MGK13; **MGK14** = *M. circinelloides* MGK14; **MGK20** = *C. eragrosticola* MGK20; **MGK31** = *P. antarcticum* MGK31; **MGK33** = *C. rogersoniana* MGK33 and **MGK42** = *P. expansum* MGK42.