



## Supplementary Material

# Identification of Ten New *N*-acetyldopamine Dimers from *Periostracum Cicadae*

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## Supplementary Table S1. The detailed information of Cicadamide C1 (1)–C10 (10).

Compound	Detailed information
Cicadamide C1 (1)	White powder; MP: 180.6–181.2 °C; [α] <sub>D</sub> <sup>20</sup> +7.9° (c =0.003, MeOH) IR (ν <sub>KBr</sub> , cm <sup>-1</sup> ): 3278, 3067, 1506, 1371, 1263, 1031 UV (MeOH) λ <sub>max</sub> (log ε): 280.6 nm 1H NMR (600 MHz, CD <sub>3</sub> OD): see Table I. 13C NMR (150 MHz, CD <sub>3</sub> OD): see Table I. HMBC: see Figure 2. ESI-TOF-HR-MS: <i>m/z</i> 578.2160 [M+H] <sup>+</sup> ; calcd. 578.2139 for C <sub>30</sub> H <sub>32</sub> N <sub>3</sub> O <sub>9</sub> (2 <i>S</i> ,3 <i>R</i> ,2' <i>R</i> ,3' <i>S</i> )-2-(3',4'-dihydroxyphenyl)-3-acetylamino-7-( <i>N</i> -acetyl-2-aminoethyl)-1,4-benzodioxan-2-yl)-1,4-benzodioxane
Cicadamide C2 (2)	White powder MP: 184.5–187.3 °C [α] <sub>D</sub> <sup>20</sup> +24.3° (c 0.009, MeOH) IR (ν <sub>KBr</sub> , cm <sup>-1</sup> ): 3257, 3047, 1649, 1502, 1437, 1373, 1269, 1020 UV (MeOH) λ <sub>max</sub> (log ε): 280.3 nm 1H NMR (600 MHz, CD <sub>3</sub> OD): see Table II. 13C NMR (150 MHz, CD <sub>3</sub> OD): see Table II. HMBC: see Figure 2. ESI-TOF-HR-MS: <i>m/z</i> 578.2141 [M+H] <sup>+</sup> ; calcd. 578.2139 for C <sub>30</sub> H <sub>32</sub> N <sub>3</sub> O <sub>9</sub> (2 <i>R</i> ,3 <i>S</i> ,2' <i>R</i> ,3' <i>S</i> )-2-(3',4'-dihydroxyphenyl)-3-acetylamino-7-(3-acetylamino-7-( <i>N</i> -acetyl-2-aminoethyl)-1,4-benzodioxan-2-yl)-1,4-benzodioxane

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Compound	Detailed information
Cicadamide C3 (3)	<p>White powder  MP: 181.3–198.9 °C  <math>[\alpha]_D^{20}</math> -26.1° (<i>c</i> 0.03, MeOH)  IR (<math>\nu_{\text{KB}}^{\text{cm}^{-1}}</math>): 3269, 3047, 1678, 1506, 1437, 1373, 1267, 1213  UV (MeOH) <math>\lambda_{\text{max}}(\log \epsilon)</math>: 280.8 nm  <sup>1</sup>H NMR (600 MHz, CD<sub>3</sub>OD): see Table III.  <sup>13</sup>C NMR (150 MHz, CD<sub>3</sub>OD): see Table III.  HMBC: see Figure 2.  ESI-TOF-HR-MS: <i>m/z</i> 578.2111 [M+H]<sup>+</sup>; calcd. 578.2139 for C<sub>30</sub>H<sub>32</sub>N<sub>3</sub>O<sub>9</sub>  (2<i>S</i>,3<i>R</i>,2'<i>S</i>,3'<i>R</i>)-2-(3',4'-dihydroxyphenyl)-3-acetylamino-7-(3-acetylamino-6-(<i>N</i>-acetyl-2-aminoethyl)-1,4-benzodioxan-2-yl)-1,4-benzodioxane</p>
Cicadamide C4 (4)	<p>White powder  MP: 179.7–182.7°C  <math>[\alpha]_D^{20}</math> +13.4° (<i>c</i> 0.006, MeOH)  IR (<math>\nu_{\text{KB}}^{\text{cm}^{-1}}</math>): 3398, 3062, 1654, 1506, 1438, 1373, 1267, 1028  UV (MeOH) <math>\lambda_{\text{max}}(\log \epsilon)</math>: 280.8 nm  <sup>1</sup>H NMR (600 MHz, CD<sub>3</sub>OD): see Table IV.  <sup>13</sup>C NMR (150 MHz, CD<sub>3</sub>OD): see Table IV.  HMBC: see Figure 2.  ESI-TOF-HR-MS: <i>m/z</i> 578.2114 [M+H]<sup>+</sup>; calcd. 578.2139 for C<sub>30</sub>H<sub>32</sub>N<sub>3</sub>O<sub>9</sub>  (2<i>R</i>,3<i>S</i>,2'<i>R</i>,3'<i>S</i>)-2-(3',4'-dihydroxyphenyl)-3-acetylamino-7-(3-acetylamino-6-(<i>N</i>-acetyl-2-aminoethyl)-1,4-benzodioxan-2-yl)-1,4-benzodioxane</p>
Cicadamide C5 (5)	<p>White powder  MP: 226.3–228.7°C  <math>[\alpha]_D^{20}</math> +15.2° (<i>c</i> 0.006, MeOH)  IR (<math>\nu_{\text{KB}}^{\text{cm}^{-1}}</math>): 3062, 1653, 1508, 1438, 1373, 1253, 1027  UV (MeOH) <math>\lambda_{\text{max}}(\log \epsilon)</math>: 280.8 nm  <sup>1</sup>H NMR (600 MHz, CD<sub>3</sub>OD): see Table V.  <sup>13</sup>C NMR (150 MHz, CD<sub>3</sub>OD): see Table V.  HMBC: see Figure 2.  ESI-TOF-HR-MS: <i>m/z</i> 578.2144 [M+H]<sup>+</sup>; calcd. 578.2139 for C<sub>30</sub>H<sub>32</sub>N<sub>3</sub>O<sub>9</sub>  2-(3',4'-dihydroxyphenyl)-3-acetylamino-6-(3-acetylamino-6-(<i>N</i>-acetyl-2-aminoethyl)-1,4-benzodioxan-2-yl)-1,4-benzodioxane</p>
Cicadamide C6 (6)	<p>White powder  MP: 185.7–188.3°C  <math>[\alpha]_D^{20}</math> +18.1° (<i>c</i> 0.006, MeOH)  IR (<math>\nu_{\text{KB}}^{\text{cm}^{-1}}</math>): 3423, 1510, 1267, 1213, 1029  UV (MeOH) <math>\lambda_{\text{max}}(\log \epsilon)</math>: 280.6 nm  <sup>1</sup>H NMR (600 MHz, CD<sub>3</sub>OD): see Table VI.  <sup>13</sup>C NMR (150 MHz, CD<sub>3</sub>OD): see Table VI.  HMBC: see Figure 2.  ESI-TOF-HR-MS: <i>m/z</i> 594.2054 [M+H]<sup>+</sup>; calcd. 594.2088 for C<sub>30</sub>H<sub>32</sub>N<sub>3</sub>O<sub>10</sub>  (2<i>R</i>,3<i>S</i>,2'<i>R</i>,3'<i>S</i>)-2-(3',4'-dihydroxyphenyl)-3-acetylamino-6-(3-acetylamino-6-(<i>N</i>-acetyl-2-amino-1-hydroxyethyl)-1,4-benzodioxan-2-yl)-1,4-benzodioxane</p>
Cicadamide C7 (7)	<p>White powder  MP: 186.4–188.2°C  <math>[\alpha]_D^{20}</math> +12.9° (<i>c</i> 0.005, MeOH)  IR (<math>\nu_{\text{KB}}^{\text{cm}^{-1}}</math>): 3466, 2314, 1269, 1028  UV (MeOH) <math>\lambda_{\text{max}}(\log \epsilon)</math>: 280.4 nm  <sup>1</sup>H NMR (600 MHz, CD<sub>3</sub>OD): see Table VII.  <sup>13</sup>C NMR (150 MHz, CD<sub>3</sub>OD): see Table VII.  HMBC: see Figure 2.  ESI-TOF-HR-MS: <i>m/z</i> 594.2082 [M+H]<sup>+</sup>; calcd. 594.2088 for C<sub>30</sub>H<sub>32</sub>N<sub>3</sub>O<sub>10</sub>  (2<i>R</i>,3<i>S</i>,2'<i>R</i>,3'<i>S</i>)-2-(3',4'-dihydroxyphenyl)-3-acetylamino-6-(3-acetylamino-7-(<i>N</i>-acetyl-2-amino-1-hydroxyethyl)-1,4-benzodioxan-2-yl)-1,4-benzodioxane</p>

*Table continued on next page.....*

Compound	Detailed information
Cicadamide C8 ( <b>8</b> )	<p>White powder  MP: 186.6–187.4°C  <math>[\alpha]_D^{20}</math> +4.6° (<i>c</i> 0.002, MeOH)  IR (<math>\nu_{\text{KBr}}</math>, <math>\text{cm}^{-1}</math>): 3273, 3074, 1664, 1508, 1436, 1371, 1263, 1035  UV (MeOH) <math>\lambda_{\text{max}}(\log \epsilon)</math>: 280.8 nm  <sup>1</sup>H NMR (600 MHz, CD<sub>3</sub>OD): see Table VIII.  <sup>13</sup>C NMR (150 MHz, CD<sub>3</sub>OD): see Table VIII.  HMBC: see Figure 2.  ESI-TOF-HR-MS: <i>m/z</i> 594.2012 [M+H]<sup>+</sup>; calcd. 594.2088 for C<sub>30</sub>H<sub>32</sub>N<sub>3</sub>O<sub>10</sub>  (2<i>R</i>,3<i>S</i>,2'<i>R</i>,3'<i>S</i>)-2-(3',4'-dihydroxyphenyl)-3-acetylamino-7-(3-acetylamino-7-(<i>N</i>-acetyl-2-amino-1-hydroxyethyl)-1,4-benzodioxan-2-yl)-1,4-benzodioxane</p>
Cicadamide C9 ( <b>9</b> )	<p>White powder  MP: 163.9–165.5°C  IR (<math>\nu_{\text{KBr}}</math>, <math>\text{cm}^{-1}</math>): 3269, 1649, 1508, 1271, 1033  UV (MeOH) <math>\lambda_{\text{max}}(\log \epsilon)</math>: 279.6 nm  <sup>1</sup>H NMR (600 MHz, CD<sub>3</sub>OD): see Table IX.  <sup>13</sup>C NMR (150 MHz, CD<sub>3</sub>OD): see Table IX.  HMBC: see Figure 2.  ESI-TOF-HR-MS: <i>m/z</i> 576.1982 [M+H]<sup>+</sup>; calcd. 576.1982 for C<sub>30</sub>H<sub>30</sub>N<sub>3</sub>O<sub>9</sub>  (2<i>S</i>,3<i>R</i>,2'<i>R</i>,3'<i>S</i>)-2-(3',4'-dihydroxyphenyl)-3-acetylamino-7-(3-acetylamino-7-(<i>N</i>-acetyl-2-aminoethylene)-1,4-benzodioxan-2-yl)-1,4-benzodioxane</p>
Cicadamide C10 ( <b>10</b> )	<p>White powder  MP: 226.8–230.4°C  <math>[\alpha]_D^{20}</math> -26.3° (<i>c</i> -0.01, MeOH)  IR (<math>\nu_{\text{KBr}}</math>, <math>\text{cm}^{-1}</math>): 3275, 3061, 1649, 1502, 1437, 1373, 1269, 1020  UV (MeOH) <math>\lambda_{\text{max}}(\log \epsilon)</math>: 281.6 nm  <sup>1</sup>H NMR (600 MHz, CD<sub>3</sub>OD): see Table I0.  <sup>13</sup>C NMR (150 MHz, CD<sub>3</sub>OD): see Table I0.  HMBC: see Figure 2.  ESI-TOF-HR-MS: <i>m/z</i> 576.1982 [M+H]<sup>+</sup>; calcd. 576.1982 for C<sub>30</sub>H<sub>30</sub>N<sub>3</sub>O<sub>9</sub>  (2<i>R</i>,3<i>S</i>,2'<i>R</i>,3'<i>S</i>)-2-(3',4'-dihydroxyphenyl)-3-acetylamino-7-(3-acetylamino-7-(<i>N</i>-acetyl-2-aminoethylene)-1,4-benzodioxan-2-yl)-1,4-benzodioxane</p>