SUPPLEMENTARY MATERIAL

A new hetero dimeric terpenoid derivative, japonicaside C, from the flower buds of *Lonicera japonica*

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ABSTRACT

A rare hetero dimeric terpenoid derivative, named japonicaside C, together with five known secoiridoid glucosides were isolated from the flower buds of *Lonicera japonica*. The structures of these compounds were established on the basis of spectroscopic analyses. Japonicaside C is the first representative of a novel type of hetero dimeric terpenoid, biogenetically originated from a guaiane-type sesquiterpenoid and a secoiridoid glucoside. Anti-virus activity of the isolated compounds were evaluated *in vitro.*

KEYWORDS

*Lonicera japonica*, japonicaside C, secoiridoid glucoside, sesquiterpenoid, Anti-virus, RSV
Figure S1 Structure, key HMBC (→) and COSY (▬) correlations of compound 1

Figure S2 Key HMBC (→) and COSY (▬) correlations of Part B of compound 1

Figure S3 Key ROESY (H↔H) correlations of 1
Figure S4 HR-ESI-Q-TOF-MS spectrum of Compound 1

Figure S5 $^1$H-NMR spectrum of Compound 1
Figure S6 $^{13}$C-NMR spectrum of Compound 1

Figure S7 DEPT-135 spectrum of Compound 1
Figure S8 $^1$H-$^1$H COSY spectrum of Compound 1

Figure S9 HSQC spectrum of Compound 1
**Figure S10** HMBC spectrum of Compound 1

**Figure S10** ROESY spectrum of Compound 1
### Table S1 NMR Spectroscopic Data (CD$_3$OD) of Compound 1

| Pos. | $\delta_C$ | $\delta_H$ ($J$ in Hz) | $\delta_C$ | $\delta_H$ ($J$ in Hz) |
|------|------------|------------------------|------------|------------------------|
| 1    | 97.6       | 5.54, d (6.6)          | 1"         | 47.9                   |
| 3    | 152.9      | 7.41, s                | 2"         | 38.5                   |
| 4    | 112.8      |                        | 3"         | 211.5                  |
| 5    | 30.2       | 2.99, d (7.0)          | 4"         | 141.9                  |
| 6    | 36.2       | 1.74, m                | 5"         | 174.8                  |
| 7    | 96.2       | 5.07, dd (5.4, 3.6)    | 6"         | 31.4                   |
| 8    | 136.2      | 5.77, ddd (17.4, 10.8, 8.4) | 7"    | 74.0                   |
| 9    | 45.5       | 2.62, dd (13.2, 7.2)   | 8"         | 81.5                   |
| 10   | 119.2      | 5.29, dt (17.4, 1.2)   | 9"         | 33.4                   |
|      |            | 5.24, d (10.2)         | 10"        | 31.6                   |
|      |            |                        | 11"        | 80.7                   |
| 11   | 171.8      |                        | 12"        | 20.6                   |
| 1’   | 100.1      | 4.70, d (7.8)          | 13"        | 23.9                   |
| 2’   | 74.5       | 3.19, dd (9.0, 7.8)    | 14"        | 21.0                   |
| 3’   | 78.0       | 3.37, t (9.0)          | 15"        | 8.8                    |
| 4’   | 71.6       | 3.27, m                |            | 1.68, d (1.8)          |
| 5’   | 78.4       | 3.29, m                |            |                        |
| 6’   | 62.8       | 3.67, dd (12.0, 6.0)   |            |                        |
|      |            | 3.90, dd (12.0, 1.8)   |            |                        |