## Supplementary information

## Anti-inflammatory Labdane-type Diterpenoids from

## Physalis angulata

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Figure S1. <sup>1</sup>H NMR spectrum of 1 (400 MHz, pyridine- $d_5$ )



Figure S2. <sup>13</sup>C NMR spectrum of 1 (100 MHz, pyridinne- $d_5$ )



Figure S3. HSQC spectrum of 1 (600 MHz, pyridine- $d_5$ )



**Figure S4.** HMBC spectrum of **1** (600 MHz, pyridine- $d_5$ )



Figure S5. NOESY spectrum of 1 (600 MHz, pyridine- $d_5$ )

Tolerance = 3.0 PPM / DBE: min = 3.0, max = 50.0 Element prediction: Off Number of isotope peaks used for i-FIT = 3								
Monoisotopic Mass, Even Electron Ions 196 formula(e) evaluated with 1 results within limits (up to 50 closest results for each mass) Elements Used: C: 0-32 H: 0-100 O: 0-200 Na: 0-1 0628 SY SCP HRpos15 49 (0.205) 1: TOF MS ES+								
					007 22	06		7.22e+005
100- 		00 733	<u></u>	7 7 7 66 7 20		667.40	667.60	
000	.00	001.00		001.20		001.40	001.00	001.00
Minimum: Maximum:	4.0	3.0	3.0 50.0					
Mass Calc. 667.3306 667.33	Mass mDa 06 0.0	PPM 1 0.0	DBE i-FIT 6.5 41.4	Norm n/a	Conf(%) n/a	Formula C32 H52 O13 Na		

Figure S6. HRESIMS spectrum of 1



Figure S7. <sup>1</sup>H NMR spectrum of 2 (400 MHz, MeOH- $d_4$ )



Figure S8. <sup>13</sup>C NMR spectrum of 2 (100 MHz, MeOH- $d_4$ )



Figure S9. HSQC spectrum of 2 (600 MHz, MeOH- $d_4$ )



Figure S10. HMBC spectrum of 2 (600 MHz, MeOH- $d_4$ )



Figure S11. NOESY spectrum of 2 (600 MHz, MeOH- $d_4$ )



Figure S12. HRESIMS spectrum of 2



Figure S13. <sup>1</sup>H NMR spectrum of 3 (400 MHz, MeOH- $d_4$ )



Figure S14. <sup>13</sup>C NMR spectrum of 3 (100 MHz, MeOH- $d_4$ )



Figure S15. HSQC spectrum of 3 (600 MHz, MeOH- $d_4$ )



Figure S16. HMBC spectrum of 3 (600 MHz, MeOH- $d_4$ )



Figure S17. NOESY spectrum of 3 (600 MHz, MeOH- $d_4$ )



Figure S18. HRESIMS spectrum of 3



Figure S19. <sup>1</sup>H NMR spectrum of 4 (400 MHz, pyridine- $d_5$ )



Figure S20. <sup>13</sup>C NMR spectrum of 4 (100 MHz, pyridine- $d_5$ )



Figure S21. HSQC spectrum of 4 (600 MHz, pyridine- $d_5$ )



Figure S22. HMBC spectrum of 4 (600 MHz, pyridine-*d*<sub>5</sub>)



**Figure S23.** NOESY spectrum of **4** (600 MHz, pyridine- $d_5$ )



Figure S24. HRESIMS spectrum of 4



Figure S25. <sup>1</sup>H NMR spectrum of 5 (400 MHz, pyridine- $d_5$ )



Figure S26. <sup>13</sup>C NMR spectrum of 5 (100 MHz, pyridine- $d_5$ )



**Figure S27.** HSQC spectrum of **5** (600 MHz, pyridine-*d*<sub>5</sub>)



Figure S28. HMBC spectrum of 5 (600 MHz, pyridine- $d_5$ )



**Figure S29.** NOESY spectrum of **5** (600 MHz, pyridine- $d_5$ )



Figure S30. HRESIMS spectrum of 5



Figure S31. <sup>1</sup>H NMR spectrum of 6 (400 MHz, MeOH- $d_4$ )



Figure S32. <sup>13</sup>C NMR spectrum of 6 (100 MHz, MeOH- $d_4$ )



Figure S33. HSQC spectrum of 6 (600 MHz, MeOH- $d_4$ )


Figure S34. HMBC spectrum of 6 (600 MHz, MeOH- $d_4$ )



Figure S35. NOESY spectrum of 6 (600 MHz, MeOH- $d_4$ )



Figure S36. HRESIMS spectrum of 6



Figure S37. <sup>1</sup>H NMR spectrum of 7 (400 MHz, MeOH- $d_4$ )



Figure S38. <sup>13</sup>C NMR spectrum of 7 (100 MHz, MeOH- $d_4$ )



Figure S39. HSQC spectrum of 7 (600 MHz, MeOH- $d_4$ )



Figure S40. HMBC spectrum of 7 (600 MHz, MeOH- $d_4$ )



Figure S41. NOESY spectrum of 7 (600 MHz, MeOH- $d_4$ )



Figure S42. HRESIMS spectrum of 7



Figure S43. <sup>1</sup>H NMR spectrum of 8 (400 MHz, MeOH- $d_4$ )



Figure S44. <sup>13</sup>C NMR spectrum of 8 (100 MHz, MeOH- $d_4$ )



Figure S45. HSQC spectrum of 8 (600 MHz, MeOH- $d_4$ )



Figure S46. HMBC spectrum of 8 (600 MHz, MeOH- $d_4$ )



Figure S47. NOESY spectrum of 8 (600 MHz, MeOH- $d_4$ )



Figure S48. HRESIMS spectrum of 8







Figure S50. <sup>13</sup>C NMR spectrum of 9 (150 MHz, MeOH- $d_4$ )



Figure S51. HSQC spectrum of 9 (600 MHz, MeOH- $d_4$ )



Figure S52. HMBC spectrum of 9 (600 MHz, DMSO-*d*<sub>6</sub>)



Figure S53. NOESY spectrum of 9 (600 MHz, MeOH- $d_4$ )

## **Elemental Composition Report**



Figure S54. HRESIMS spectrum of 9

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Figure S56. <sup>13</sup>C NMR spectrum of 10 (150 MHz, MeOH- $d_4$ )



Figure S57. HSQC spectrum of 10 (600 MHz, MeOH- $d_4$ )



Figure S58. HMBC spectrum of 10 (600 MHz, MeOH- $d_4$ )



Figure S59. NOESY spectrum of 10 (600 MHz, MeOH- $d_4$ )

## **Elemental Composition Report**



Figure S60. HRESIMS spectrum of 10

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Figure S61. <sup>1</sup>H NMR spectrum of 11 (600 MHz, MeOH- $d_4$ )



Figure S62. <sup>13</sup>C NMR spectrum of 11 (150 MHz, MeOH- $d_4$ )



Figure S63. HSQC spectrum of 11 (600 MHz, MeOH- $d_4$ )



Figure S64. HMBC spectrum of 11 (600 MHz, MeOH- $d_4$ )



Figure S65. NOESY spectrum of 11 (600 MHz, MeOH- $d_4$ )

## **Elemental Composition Report**

Tolerance = 10.0 PPM / DBE: min = 3.0, max = 50.0 Element prediction: Off Number of isotope peaks used for i-FIT = 3 Monoisotopic Mass, Even Electron Ions 220 formula(e) evaluated with 1 results within limits (up to 50 closest results for each mass) Elements Used: C: 0-35 H: 0-100 N: 0-1 O: 0-200 20160227 POS SCP 89 441 (1.765) 1: TOF MS ES+ 1.93e+005 664.3906 100-%-0-- m/z 663.80 664.00 664.20 664.80 665.00 664.60 664.40 Minimum: Maximum: 3.0 50.0 4.0 10.0 PPM -0.3 Mass 664.3906 Calc. Mass mDa 664.3908 -0.2 DBE 4.5 i-FIT 37.9 Norm n/a Conf(%) Formula n/a C32 H58 N 013

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Figure S66. HRESIMS spectrum of 11



Figure S67. <sup>1</sup>H NMR spectrum of 12 (600 MHz, MeOH- $d_4$ )



Figure S68. <sup>13</sup>C NMR spectrum of 12 (150 MHz, MeOH- $d_4$ )



Figure S69. HSQC spectrum of 12 (600 MHz, MeOH- $d_4$ )


Figure S70. HMBC spectrum of 12 (600 MHz, MeOH- $d_4$ )



Figure S71. NOESY spectrum of 12 (600 MHz, MeOH- $d_4$ )

## **Elemental Composition Report**

Tolerance = 10.0 PPM / DBE: min = 3.0, max = 50.0 Element prediction: Off Number of isotope peaks used for i-FIT = 3 Monoisotopic Mass, Even Electron Ions 221 formula(e) evaluated with 1 results within limits (up to 50 closest results for each mass) Elements Used: C: 0-35 H: 0-100 N: 0-1 O: 0-200 20160227 POS SCP 90 457 (1.826) 1: TOF MS ES+ 1.32e+005 678.3699 100-%-679.00 m/z 0-677.80 678.00 678.60 678.20 678.40 678.80 3.0 50.0 Minimum: Maximum: 4.0 10.0 Mass 678.3699 Calc. Mass mDa 678.3701 -0.2 PPM -0.3 DBE 5.5 i-FIT 37.0 Norm n/a Conf(%) Formula n/a C32 H56 N 014

Figure S72. HRESIMS spectrum of 12

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