

Online Ressource

Page	Content
1.	Online Resource Fig. 1 Total ion chromatograms obtained from a methanolic <i>S. bulbocastanum</i> WKS31741 <i>blb2G</i> leaf extract.
2.	Online Resource Fig. 2 Detached leaf infection assays of <i>S. bulbocastanum</i> WKS31741 <i>blb2G</i> , <i>S. tuberosum</i> 'Maxi' and <i>S. tuberosum</i> 'Gala'
3.	Online Resource Fig. 3 Agar dilution assay with <i>Alternaria solani</i> .
4.	Online Resource Fig. 4 Agar dilution assay with <i>Botrytis cinerea</i> .
5.	Online Resource Table 1 Annotation and relative abundances of acyl solamines detected in the enriched acyl solamine fraction obtained from <i>S. bulbocastanum</i> WKS31741 <i>blb2G</i> leaf extracts.

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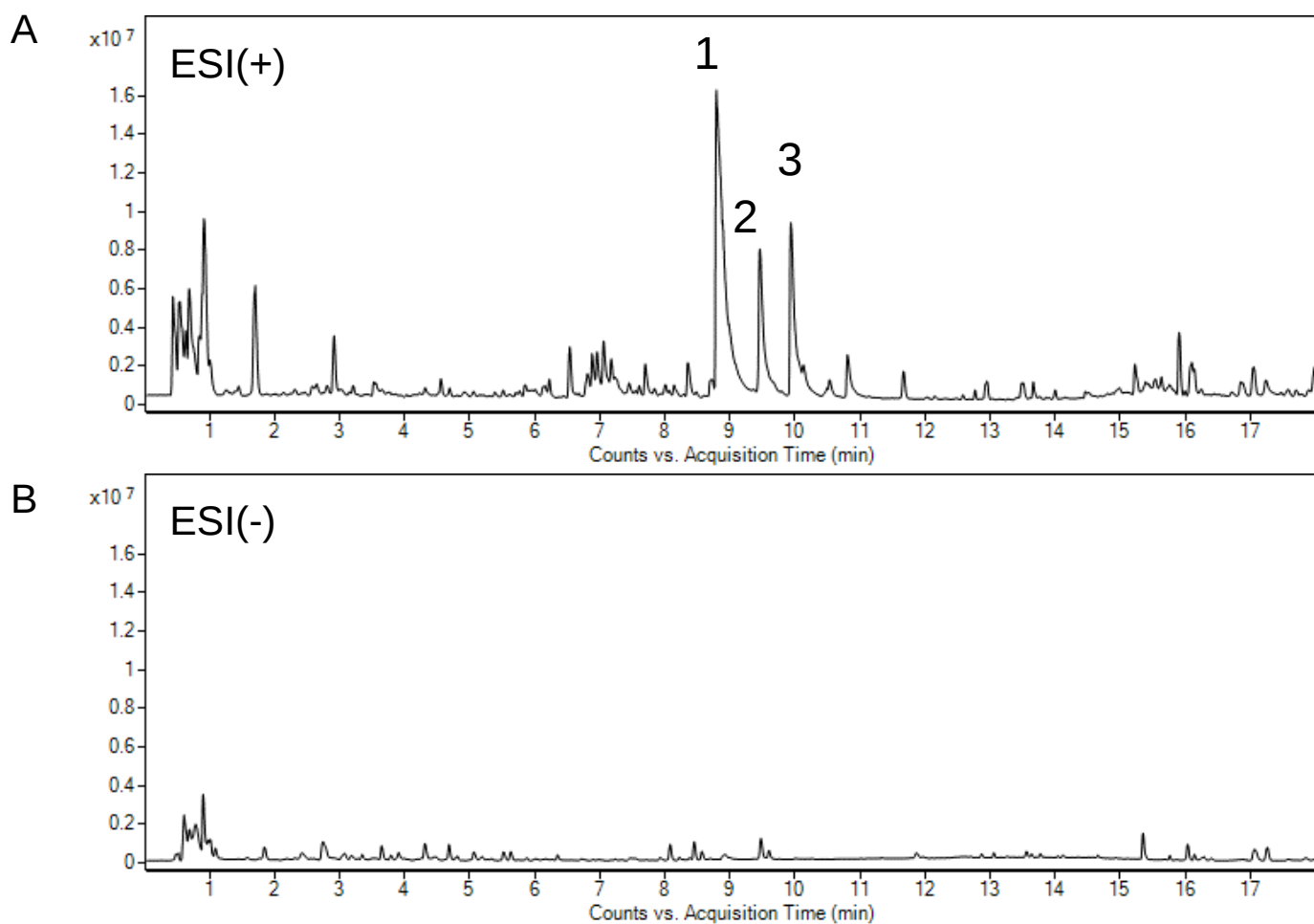
Bioactivity of acyl solamines from leaves of *Solanum bulbocastanum* against *Alternaria solani* and *Botrytis cinerea*

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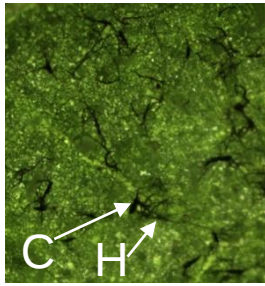
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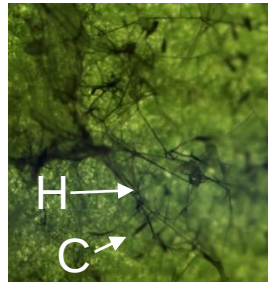


Online Resource Fig. 1 Total ion chromatograms obtained from a methanolic *S. bulbocastanum* WKS31741 *blb2G* leaf extract. Chromatograms were obtained by UHPLC/ESI-QTOFMS operated in positive (A) and negative (B) ion mode. The three most abundant fatty acyl solamines are labelled. C16:3(7Z,10Z,13Z)-solamine (1), C16:2-solamine (2) and C18:3-solamine (3)

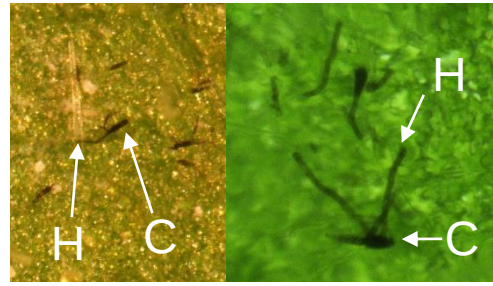
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bulbocastanum*
WKS31741 *blb2G*



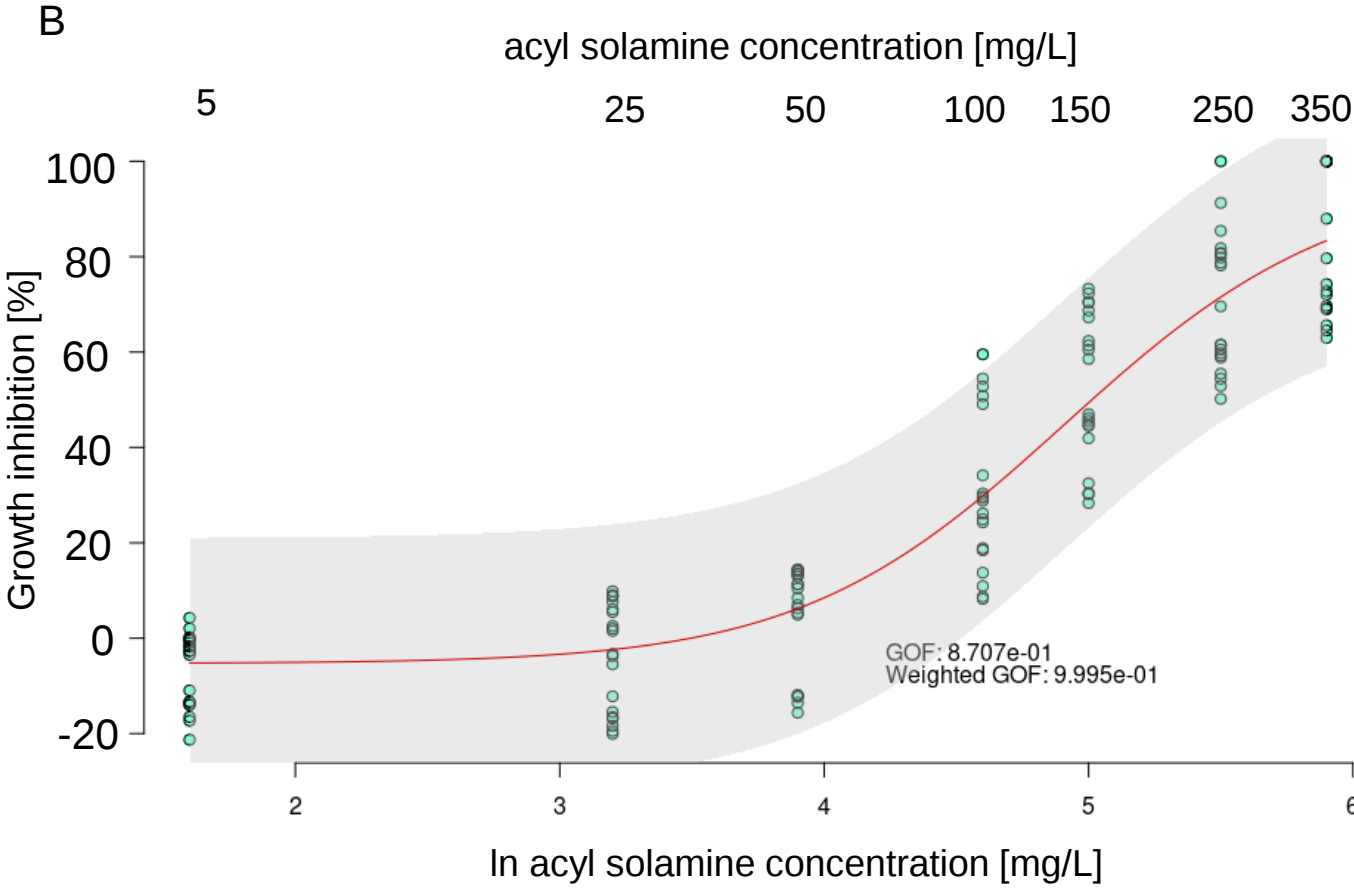
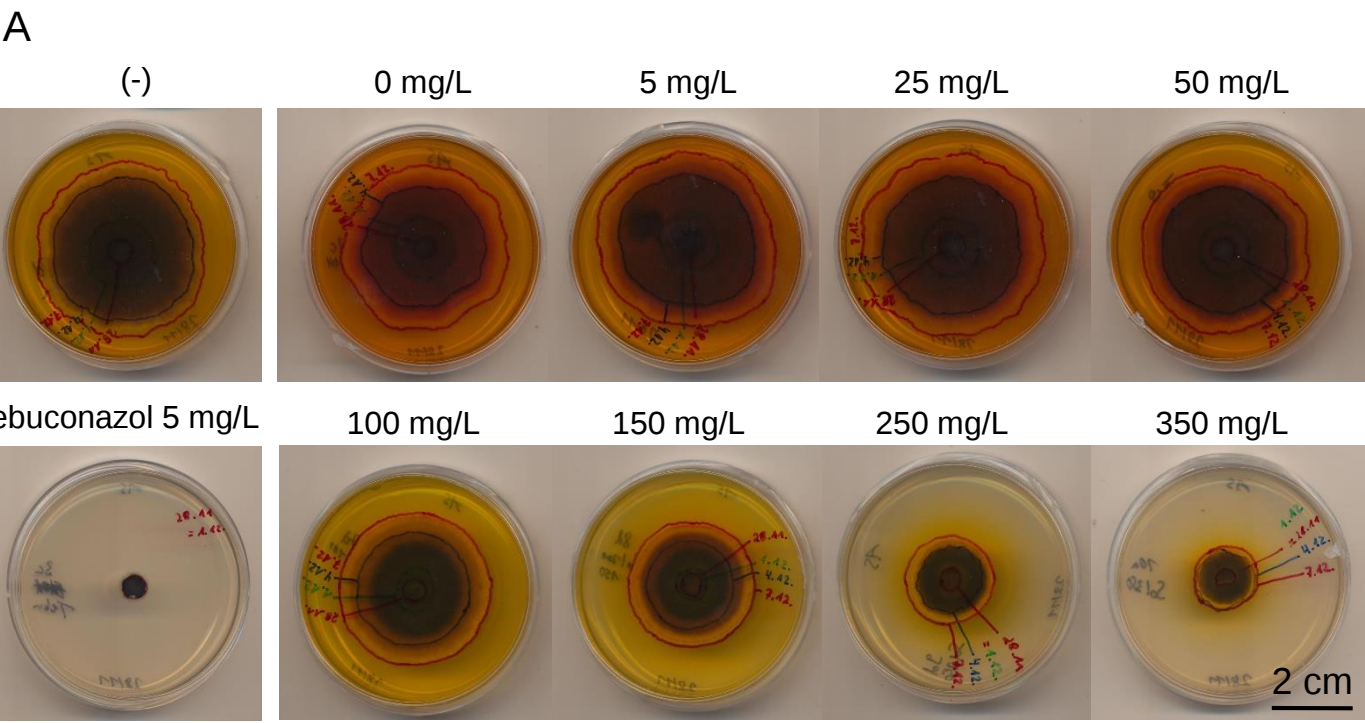
*Solanum
tuberosum*
'Maxi'



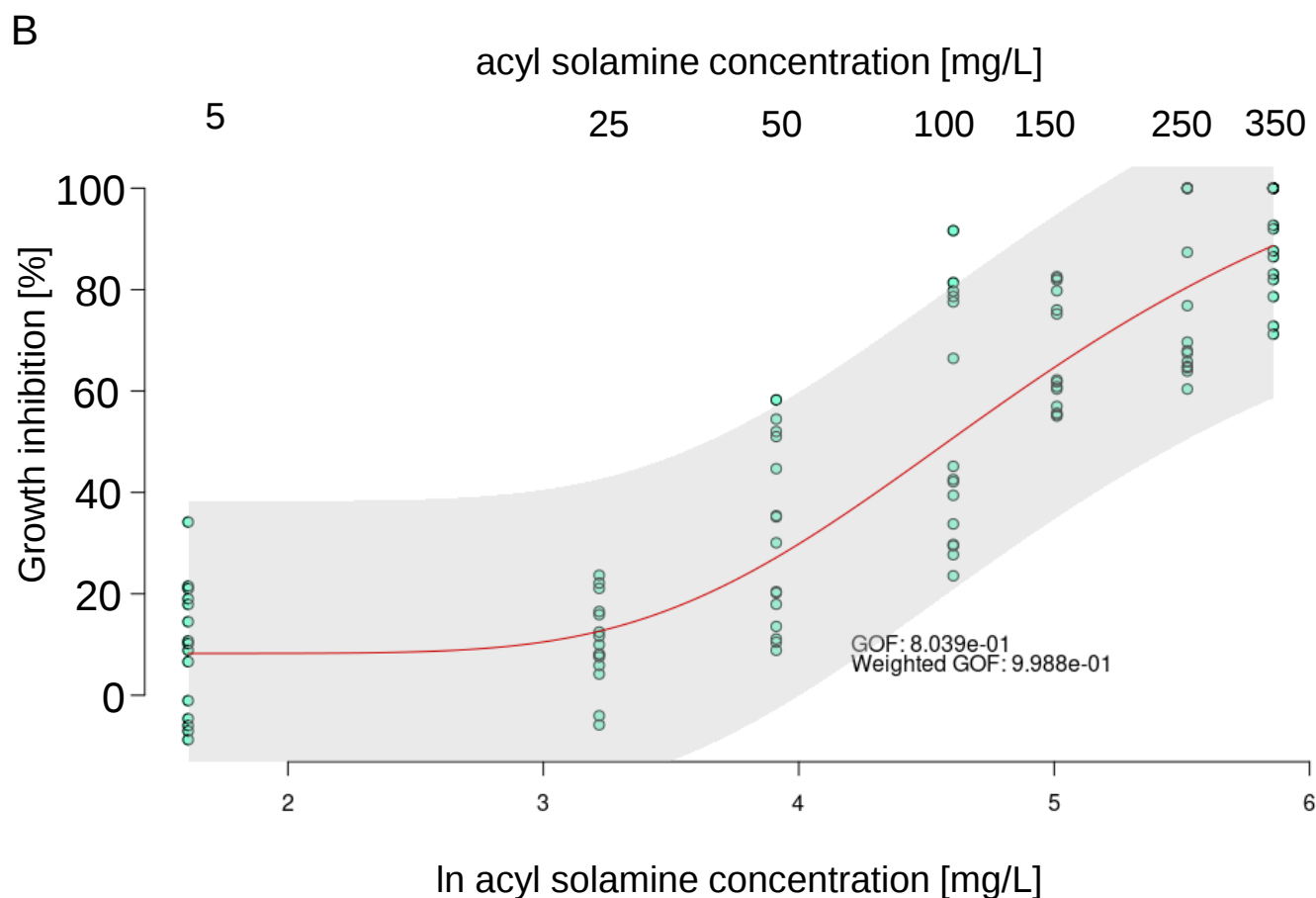
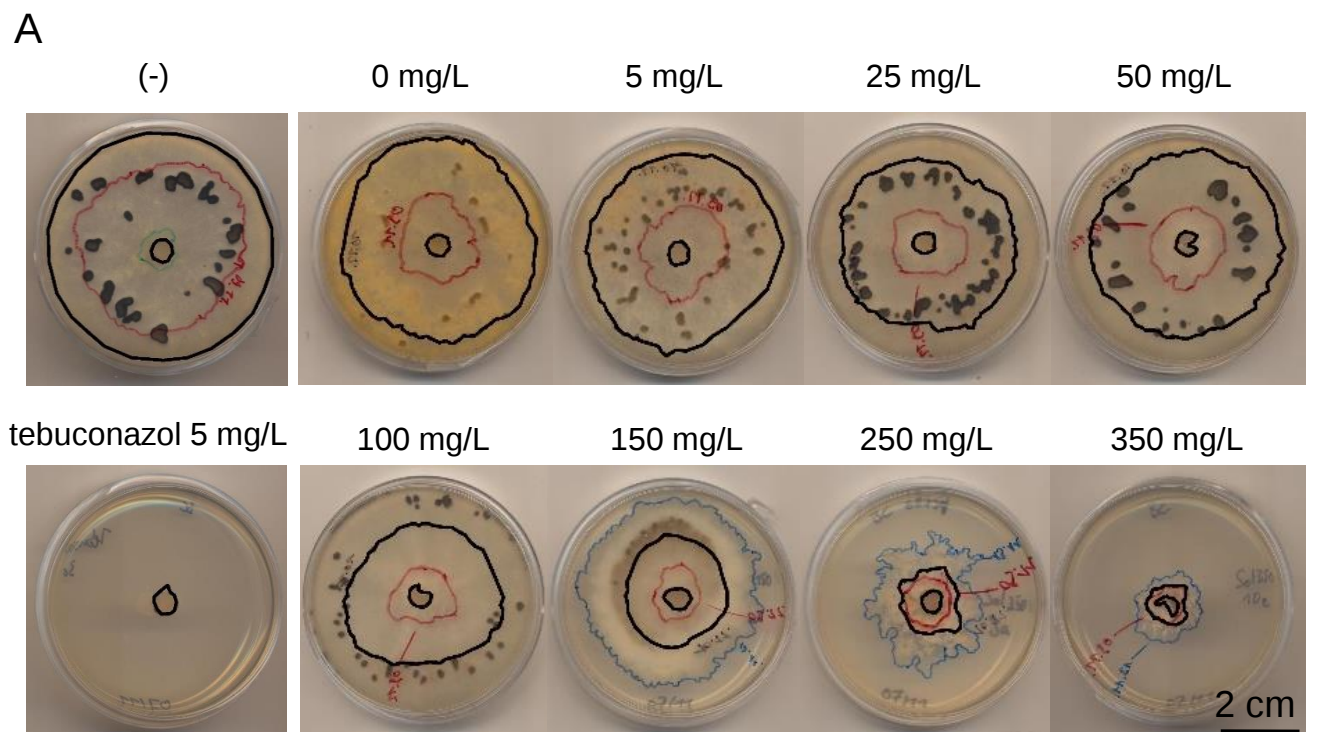
Solanum tuberosum 'Gala'



Online Resource Fig. 2 Detached leaf infection assays of *S. bulbocastanum* WKS31741 *blb2G*, *S. tuberosum* 'Maxi' and *S. tuberosum* 'Gala' with 20 μ L conidia suspension of *A. solani* isolate 774_1 (4000 conidia/mL). Photos of leaf surfaces at the infection site were taken 8 days post inoculation (*S. bulbocastanum* and *S. tuberosum* 'Maxi') and 4 days post inoculation (*S. tuberosum* 'Gala'). C: conidia, H: hyphae. Conidia germinated on all leaf surfaces.



Online Resource Fig. 3 Agar dilution assay with *Alternaria solani*. (A) Representative agar plates of *A. solani* growing for 9 days on untreated PDA (-), on PDA spiked with different amounts of the enriched acyl solamine fraction and PDA spiked with 5 mg/L tebuconazol. Mycelial growth was monitored after 4 (green), 7 (blue) and 9 days (red mark). The test was terminated after 9 days. (B) Weighted 5-parametric logistic regression model fitting the dose-response relationship. GOF: “goodness-of-fit”



Online Resource Fig. 4 Agar dilution assay with *Botrytis cinerea*. (A) Representative agar plates of *B. cinerea* isolate 68731 growing for 6 days on untreated PDA (-), on PDA spiked with different amounts of the enriched acyl solamine fraction and PDA spiked with 5 mg/L tebuconazol. Mycelial growth was monitored after 2 (red), 3 (black) and 6 days (blue mark); also the inoculum was marked in black. Growth data for inhibition calculation were taken from day 3 (black). (B) Weighted 5-parametric logistic regression model fitting the dose-response relationship. GOF: "goodness-of-fit"

Online Resource Table 1 Annotation and relative abundances of acyl solamines detected in the enriched acyl solamine fraction obtained from *S. bulbocastanum* WKS31741 *blb2G* leaf extracts. All detectable acyl solamines were relatively quantified (area percent method) in three independently prepared fractions. Means and standard deviations are shown. Acyl solamines with a relative intensity of >1% of the total peak area are highlighted in grey. A systematic compound name is provided as “Acyl-Sol”: acyl moiety (cinnamoyl, feruloyl or CX:Y-O_Z with X: acyl chain length, Y: number of double bond equivalents, Z: number of oxygenations) N-acylated to 4,4'-bis(dimethylamino)dibutylamine (Sol).

name	rel. peak intensity acyl solamine fraction [mean +/- SD]
cinnamoyl-Sol	0.20 +/- 0.03
feruloyl-Sol	0.03 +/- 0.00
C8:0-Sol	0.005 +/- 0.003
C8:1-O ₂ -Sol	0.01 +/- 0.01
C8:1-Sol	0.01 +/- 0.01
C8:2-Sol	0.004 +/- 0.003
C10:2-O ₁ -Sol	0.03 +/- 0.00
C10:2-Sol	0.02 +/- 0.01
C10:3-Sol	0.01 +/- 0.00
C12:0-Sol	0.02 +/- 0.02
C12:2-O ₁ -Sol	0.02 +/- 0.01
C14:0-Sol	0.05 +/- 0.01
C14:1-O ₁ -Sol	0.11 +/- 0.04
C14:1-Sol	0.01 +/- 0.01
C14:2-O ₁ -Sol	0.02 +/- 0.02
C14:2-Sol	0.43 +/- 0.15
C14:3-Sol	0.31 +/- 0.12
C16:0-Sol	0.09 +/- 0.03
C16:1-O ₁ -Sol	0.02 +/- 0.02
C16:1-O ₃ -Sol	0.004 +/- 0.003
C16:1-Sol	0.26 +/- 0.03
C16:2-O ₁ -Sol	0.21 +/- 0.06
C16:2-O ₂ -Sol	0.02 +/- 0.00
C16:2-O ₃ -Sol	0.02 +/- 0.01
C16:2-Sol	2.38 +/- 0.06
C16:3-O ₁ -Sol	1.07 +/- 0.12
C16:3-O ₂ -Sol	0.13 +/- 0.05
C16:3-Sol	91.56 +/- 0.49
C16:4-Sol	0.40 +/- 0.06
C18:2-O ₃ -Sol	0.01 +/- 0.01
C18:2-Sol	0.15 +/- 0.03
C18:3-O ₁ -Sol	0.02 +/- 0.01
C18:3-Sol	2.33 +/- 0.49