

Study of the Royal Jelly Free Fatty Acids by Liquid Chromatography-High Resolution Mass Spectrometry (LC-HRMS)

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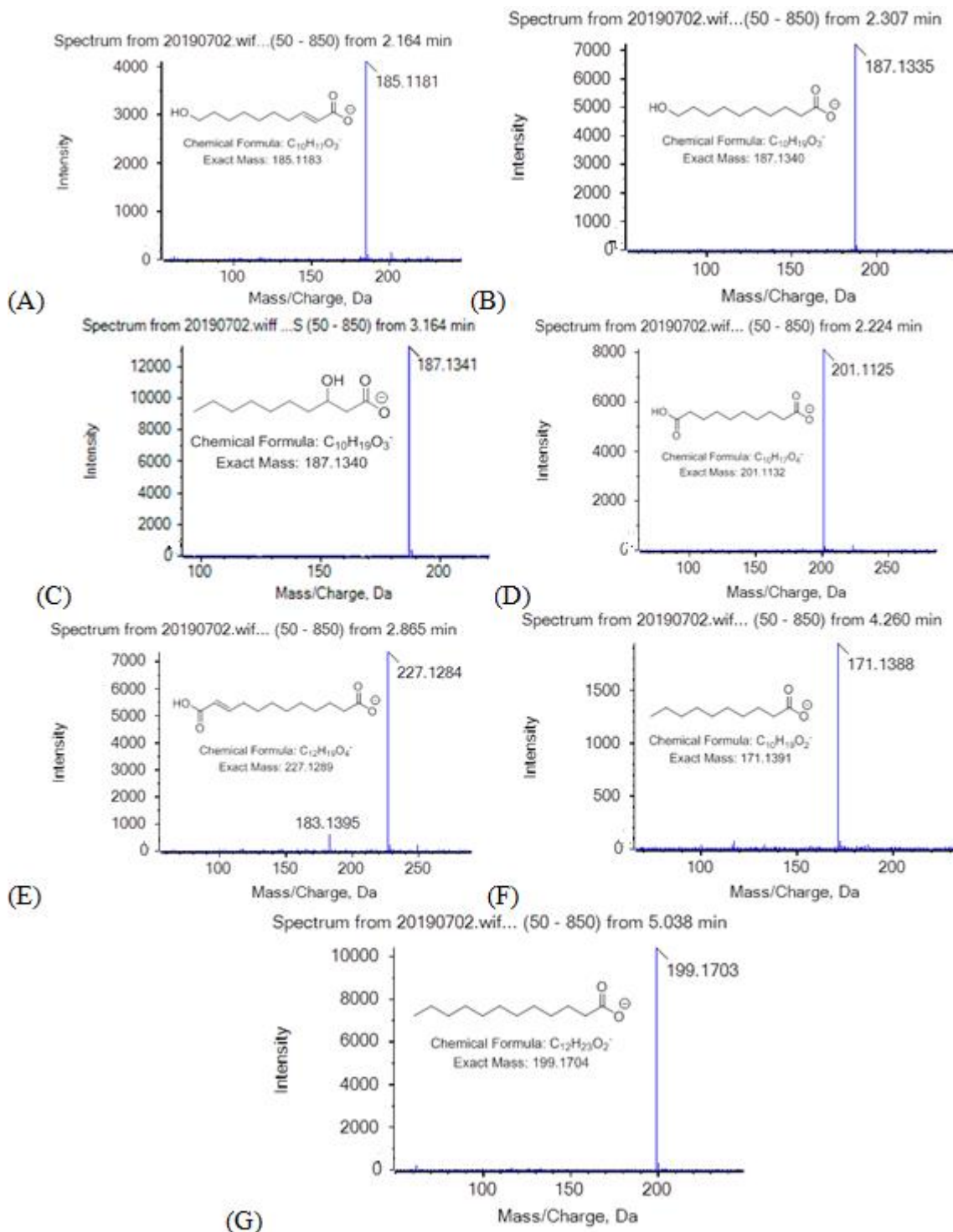


Figure S1. Full scan spectra of 10-HDA (A), 10-hydroxydecanoic acid (B), 3-hydroxydecanoic acid (C), decanedioic acid (D), 2-dodecenedioic acid (E), decanoic acid (F) and dodecanoic acid (G).

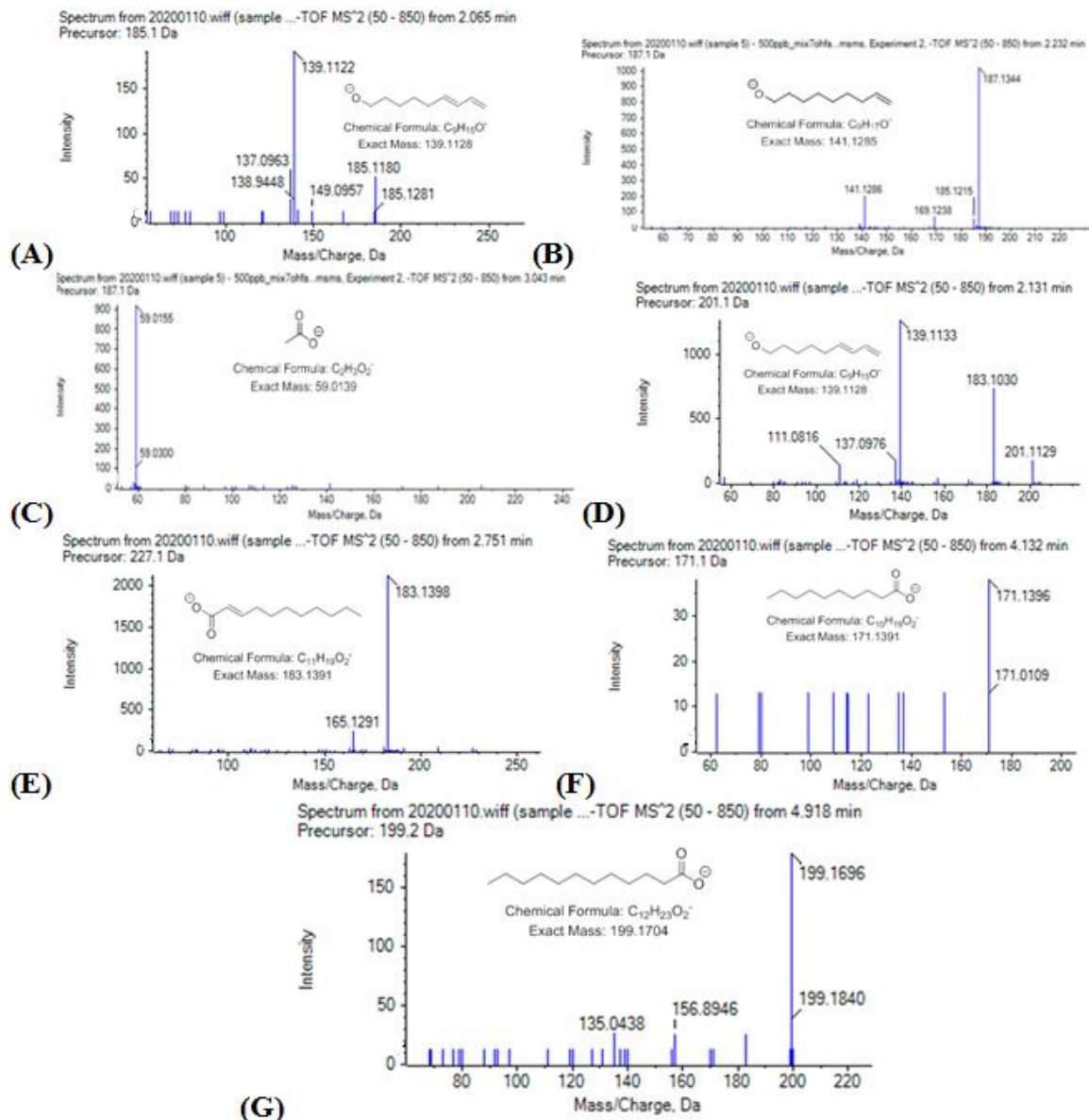


Figure S2. MS/MS spectra of 10-HDA (A), 10-hydroxydecanoic acid (B), 3-hydroxydecanoic acid (C), decanedioic acid (D), 2-dodecenedioic acid (E), decanoic acid (F) and dodecanoic acid (G).

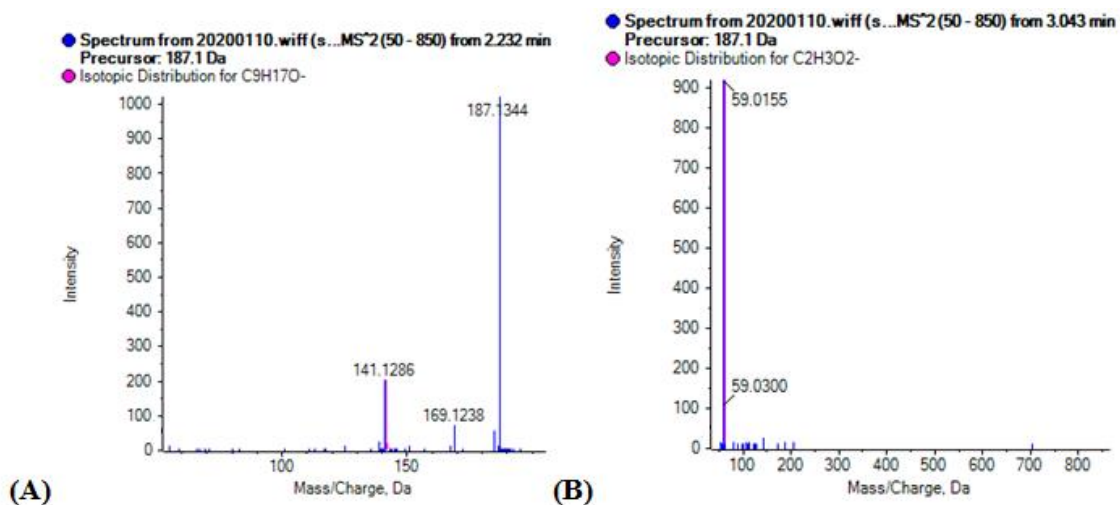
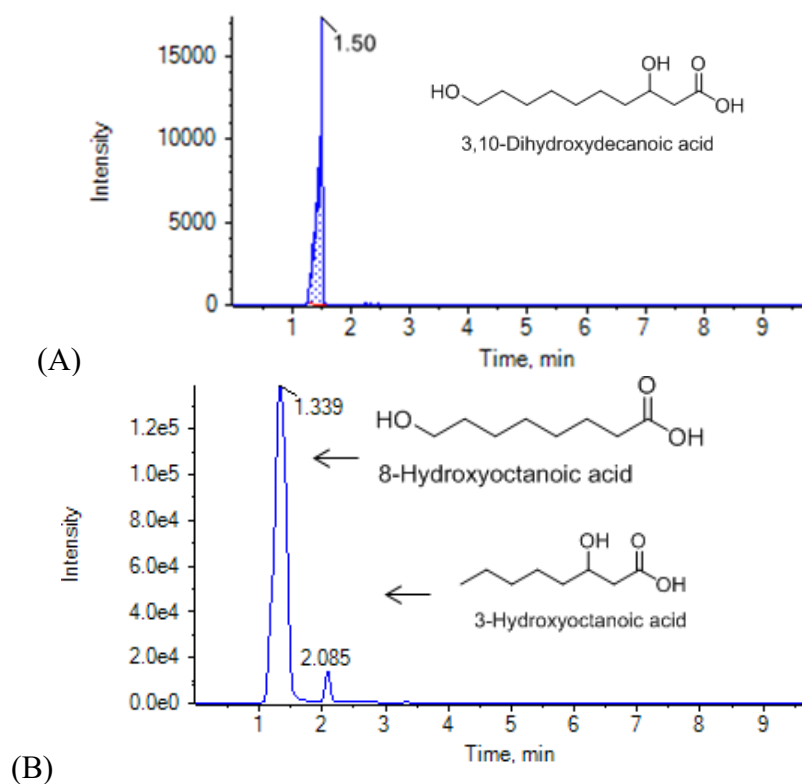


Figure S3. Isotopic distribution for fragment ions with m/z 141.1286 (A) and m/z 59.0155 (B).



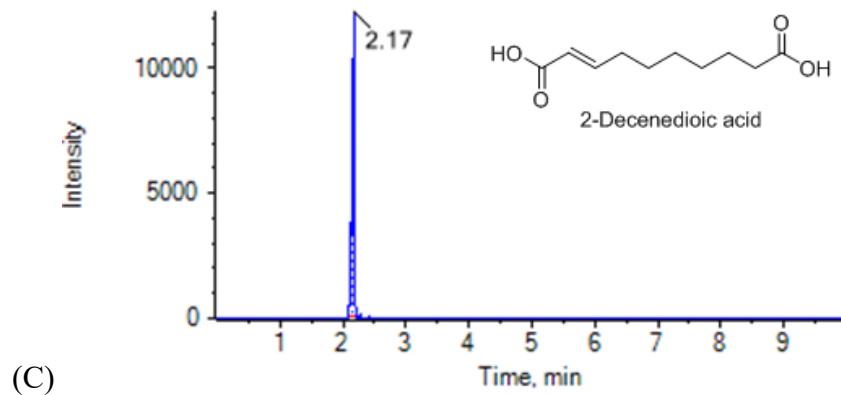


Figure S4. EICs of 3,10-dihydroxydecanoic acid (A), 8-hydroxyoctanoic acid and 3-hydroxyoctanoic acid (B) and 2-decenedioic acid (C).

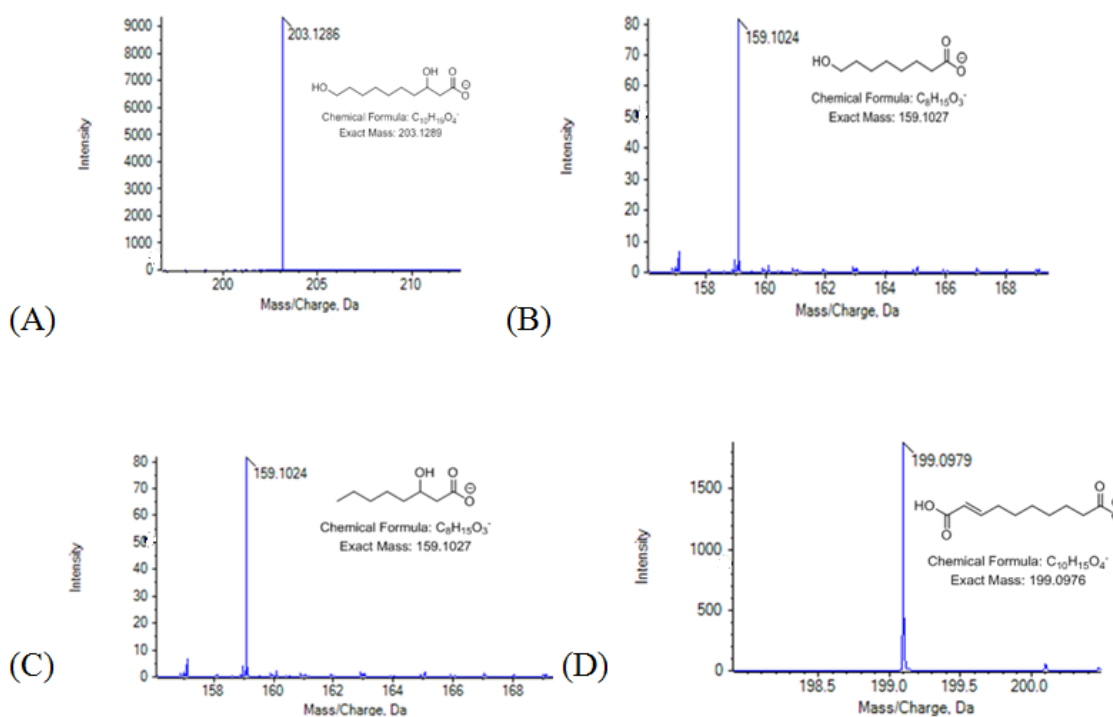


Figure S5. Full scan spectra of 3,10-dihydroxydecanoic acid (A), 8-hydroxyoctanoic acid (B), 3-hydroxyoctanoic acid (C) and 2-decenedioic acid (D).

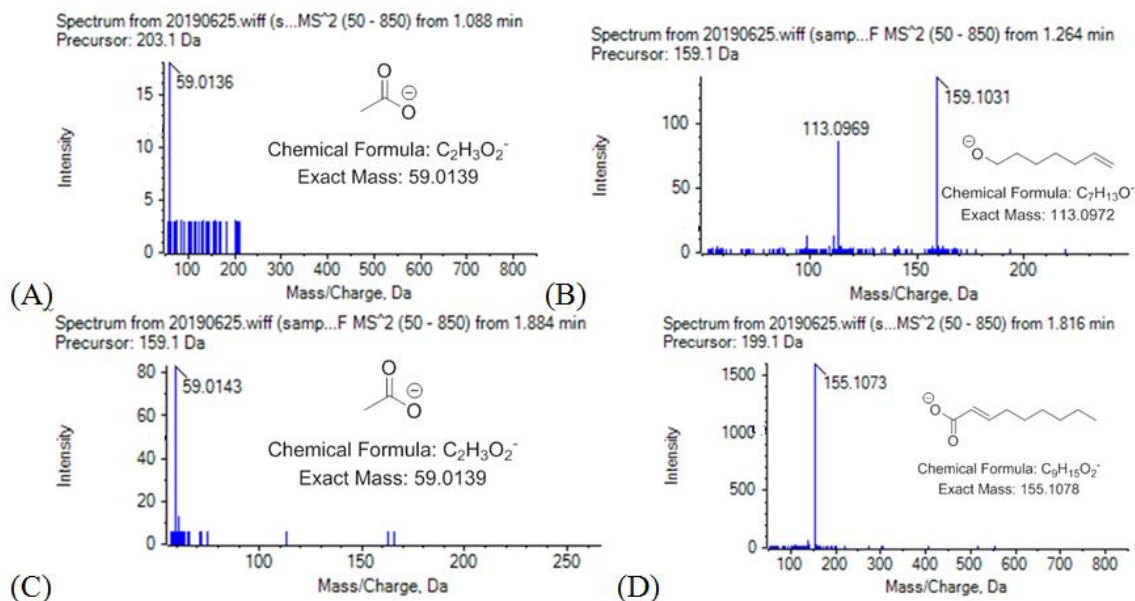


Figure S6. MS/MS spectra of 3,10-dihydroxydecanoic acid (A), 8-hydroxyoctanoic acid (B), 3-hydroxyoctanoic acid (C) and 2-decenedioic acid (D).

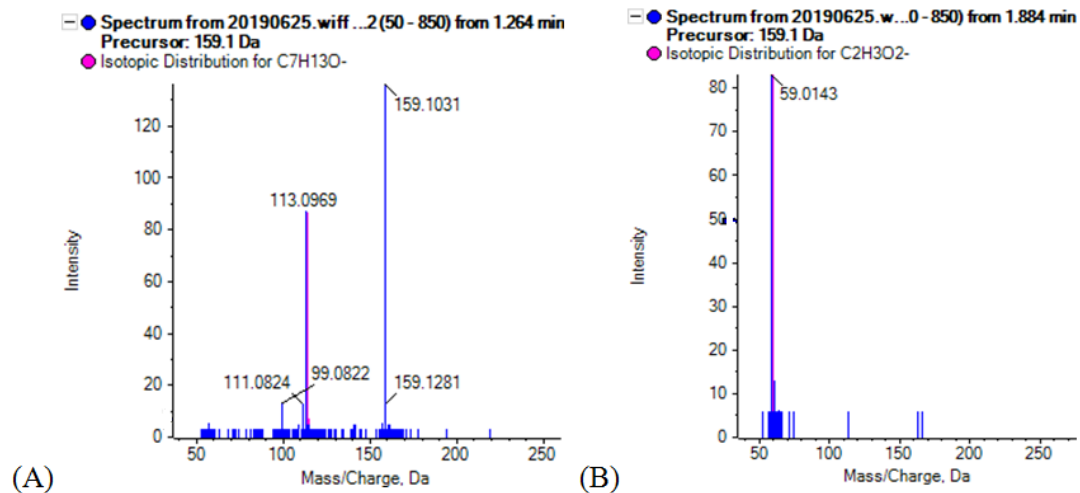


Figure S7. Isotopic distribution for fragment ions with m/z 113.0969 (A) and m/z 59.0143 (B).

Table S1. Precision and accuracy data in spiked RJ samples.

Compound	Protocol A	Protocol B		
	Recovery (%)	Recovery (%)	RSD (%)	Matrix Factor
10-HDA	82	103	13.87	0.97
10-Hydroxydecanoic acid	113	97	8.79	1.03
3-Hydroxydecanoic acid	81	104	12.80	0.96
Decanedioic acid	85	98	5.63	1.02
2-Dodecenedioic acid	82	97	5.75	1.03
Decanoic acid	-	87	2.49	1.14
Dodecanoic acid	107	82	9.48	1.22

Protocol A was abandoned, because decanoic acid was not recovered.