



Supplementary Information

# Toward an Efficient Differentiation of Two *Diaporthe* strains through Mass Spectrometry for Fungal Biotyping

Kathleen Hernández-Torres <sup>1,2,3</sup>, Daniel Torres-Mendoza <sup>1,4,5</sup>, Gesabel Navarro-Velasco <sup>6,7</sup> and Luis Cubilla-Rios <sup>1,\*</sup>

<sup>1</sup> Laboratorio de Bioorgánica Tropical, Facultad de Ciencias Naturales, Exactas y Tecnología, Universidad de Panamá, Panamá 0824, Panamá; kathleen-j.hernandez-t@up.ac.pa (K.H.-T.), daniel-t.torres-m@up.ac.pa (D.T.-M.)

<sup>2</sup> Programa de Maestría en Microbiología Ambiental, Vicerrectoría de Investigación y Postgrado, Universidad de Panamá, Panamá 0824, Panamá.

<sup>3</sup> Departamento de Microbiología y Parasitología, Facultad de Ciencias Naturales, Exactas y Tecnología, Universidad de Panamá, Panamá 0824, Panamá.

<sup>4</sup> Departamento de Química Orgánica, Facultad de Ciencias Naturales, Exactas y Tecnología, Universidad de Panamá, Panamá 0824, Panamá.

<sup>5</sup> Vicerrectoría de Investigación y Postgrado, Universidad de Panamá, Panamá 0824, República de Panamá.

<sup>6</sup> Departamento de Microbiología Humana, Facultad de Medicina, Universidad de Panamá, Panamá 0824, Panamá; gesabel.navarro@up.ac.pa (G.N.-V.)

<sup>7</sup> Centro de Investigación e Información de Medicamentos Tóxicos (CIIMET), Facultad de Medicina, Universidad de Panamá, Panamá 0824, Panamá.

\* Correspondence: luis.cubilla@up.ac.pa; Tel.: +507-6676-5824

**Table S1.** Total amount of organic extracts produced by strains F0728 and F0891

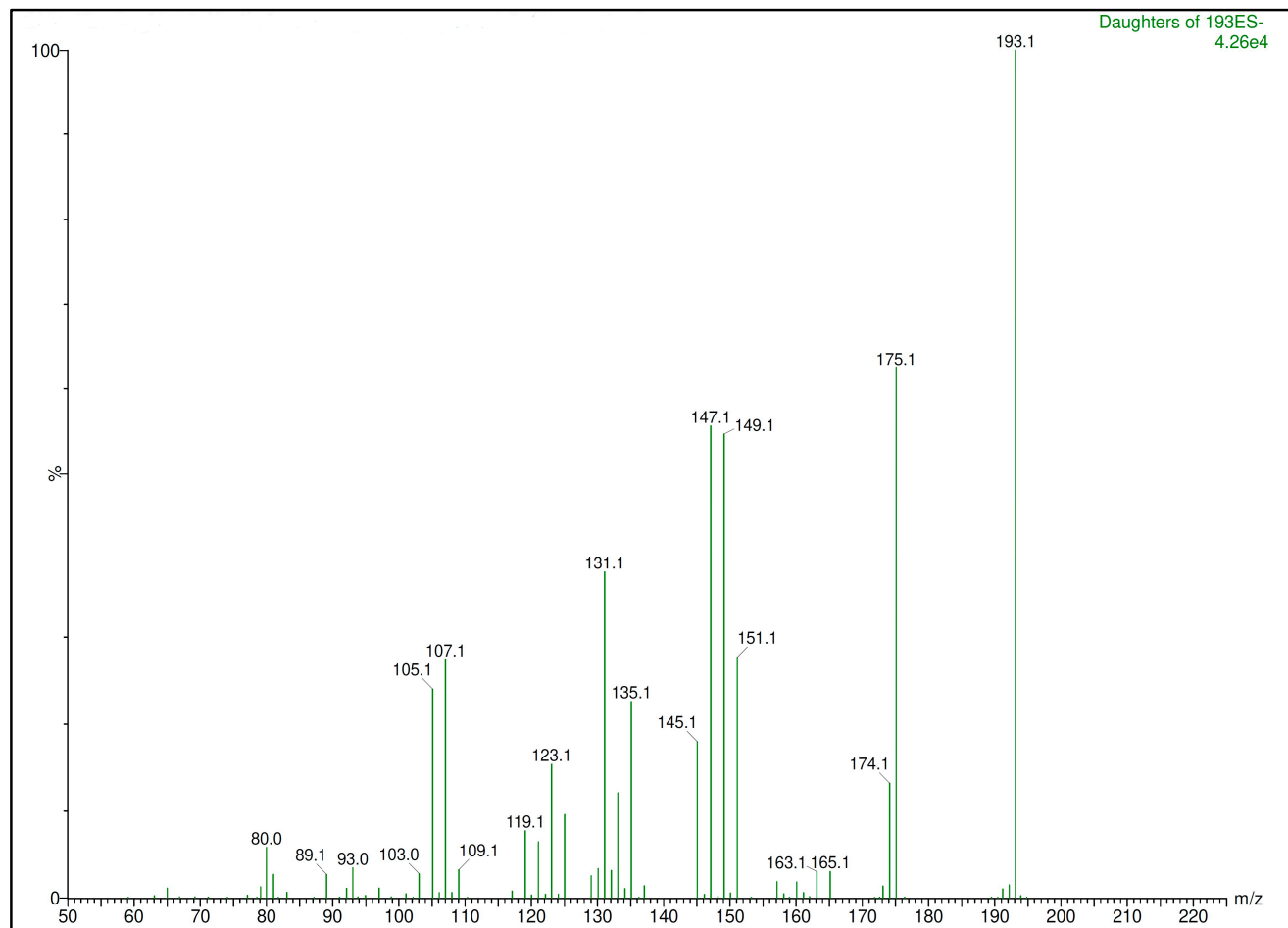
	<b>Culture Media</b>	<b>Time of culture</b>	<b>Extract 1 in grams</b>	<b>Extract 2 in grams</b>	<b>Average mass in grams</b>
<b>F0728</b>	<b>MEA</b>	07 days	15.8	10.0	12.90
		15 days	8.3	4.4	6.35
		22 days	9.2	7.5	8.35
		30 days	6.3	1.1	3.70
	<b>PDA</b>	07 days	5.9	5.3	5.60
		15 days	4.6	9.9	7.25
		22 days	13.1	7.7	10.4
		30 days	7.3	5.3	6.30
	<b>SDA</b>	07 days	6.6	5.1	5.85
		15 days	5.5	7.1	6.30
		22 days	8.1	8.1	8.10
		30 days	2.7	2.8	2.75
<b>F0891</b>	<b>MEA</b>	07 days	4.5	3.8	4.15
		15 days	2.7	1.8	2.25
		22 days	6.5	5.3	5.90
		30 days	1.5	1.3	1.40
	<b>PDA</b>	07 days	5.8	5.5	5.65
		15 days	4.5	4.2	4.35
		22 days	12.1	13.4	12.75
		30 days	1.2	6.3	3.75
	<b>SDA</b>	07 days	7.3	9.6	8.45
		15 days	6.7	6.3	6.50
		22 days	3.7	4.7	4.20
		30 days	1.5	1.2	1.35

**Table S2.** List of *m/z* values for the two *Diaporthe melongenae* with a relative abundance above 50%.

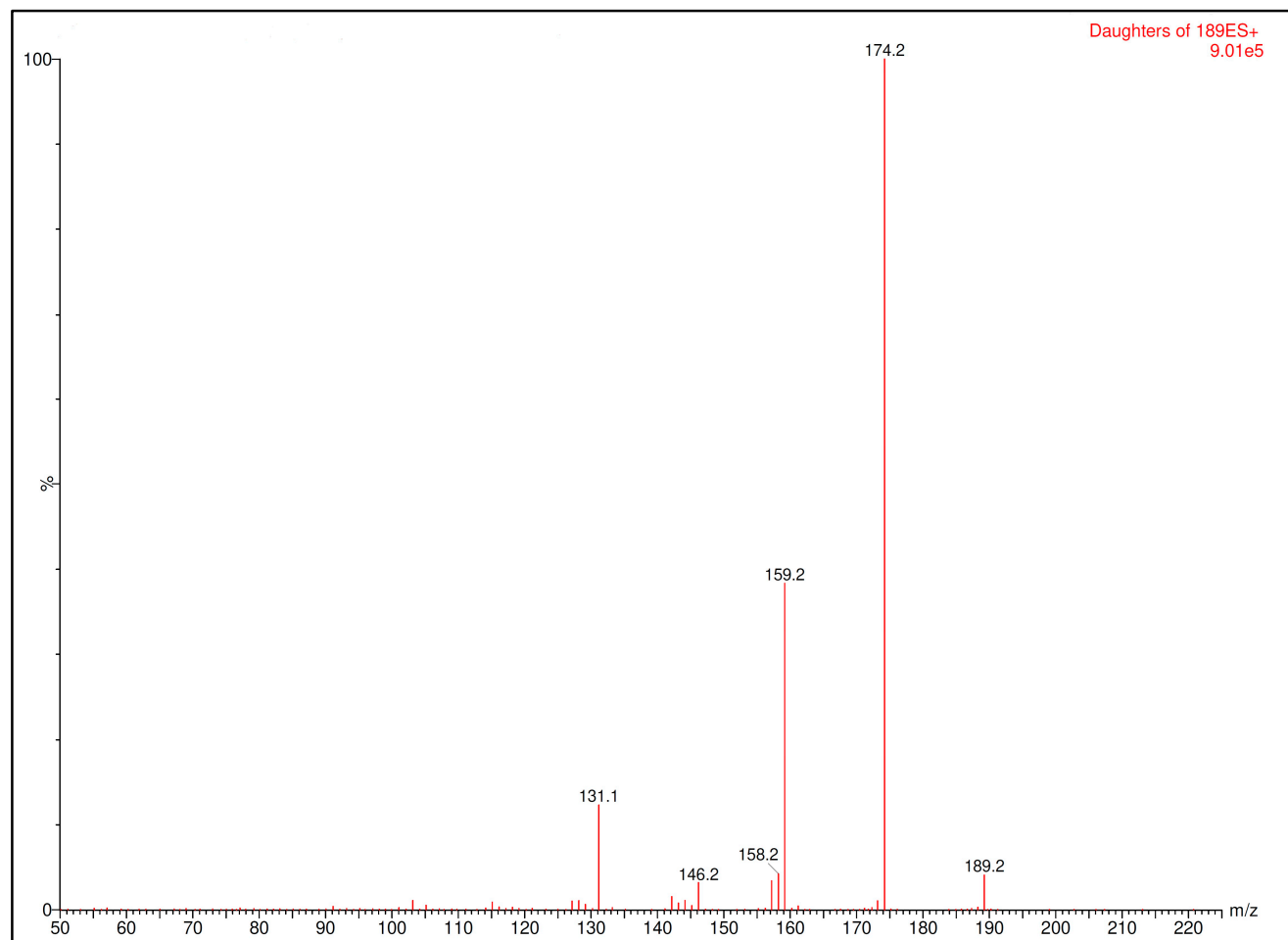
Culture Media	Time of culture	F0728		F0891	
		ESI (+)	ESI (-)	ESI (+)	ESI (-)
MEA	07 days	163 (100)*; 177 (56.8); 215 (58.8),	169 (55.7); 179 (57.6); 193 (58.3); 195 (100); 209 (66.1)	180 (87.6); 183 (100); 193 (80.3); 211 (69.4)	155 (100); 249 (82.5)
	15 days	177 (100); 191 (52.3)	363 (100); 365 (50.1); 396 (50.1)	185 (100); 321 (68.5); 343 (65.4)	155 (100); 173 (92.7)
	22 days	177 (100); 191 (60.6)	169 (59.6); 209 (59.7); 211 (67.9); 217 (100); 345 (66.2); 363 (59.6)	185 (100); 207 (58.0)	155 (70.0); 173 (100); 199 (59.6); 329 (53.3)
	30 days	-----	291 (74.1); 363 (100); 415 (74.9)	185 (100)	155 (95.1); 173 (100); 199 (72.0); 213 (57.0); 319 (79.0); 329 (63.4)
PDA	07 days	160 (100); 163 (52.0); 171 (51.5); 177 (50.1)	363 (100)	195 (89.8); 213 (58.7); 353 (100)	329 (100)
	15 days	160 (79.3); 163 (94.5); 177 (100); 189 (72.0); 215 (58.1)	179 (100); 195 (75.3); 197 (62.4)	180 (50.4); 195 (53.3); 353 (100)	249 (100); 329 (98.9)
	22 days	160 (52.4); 163 (100); 177 (62.7)	169 (82.0); 195 (100); 209 (68.3); 347 (56.2)	193 (58.0); 195 (92.2); 213 (51.9); 353 (100)	249 (100); 251 (74.2); 329 (78.5)
	30 days	163 (100); 177 (57.5); 191 (89.5); 207 (76.3); 213 (96.6); 215 (64.0); 259 (58.0)	197 (95.5); 217 (100)	193 (62.2); 195 (57.0); 353 (100)	235 (69.0); 249 (100); 329 (72.2)
SDA	07 days	160 (100); 215 (64.0)	209 (100)	211 (100); 245 (58.3)	165 (100)
	15 days	160 (100)	209 (100)	180 (50.0); 188; (73.4); 211 (100); 254 (57.6)	329 (83.3)
	22 days	160 (100); 163 (51.0); 189 (52.1); 215 (80.7)	204 (100); 209 (84.7)	211 (100); 245 (64.8)	-----
	30 days	160 (100); 163 (51.7); 189 (52.8); 215 (70.0)	204 (100); 209 (92.6)	164 (57.0); 211 (100); 245 (61.8)	-----

\*Relative abundance in %

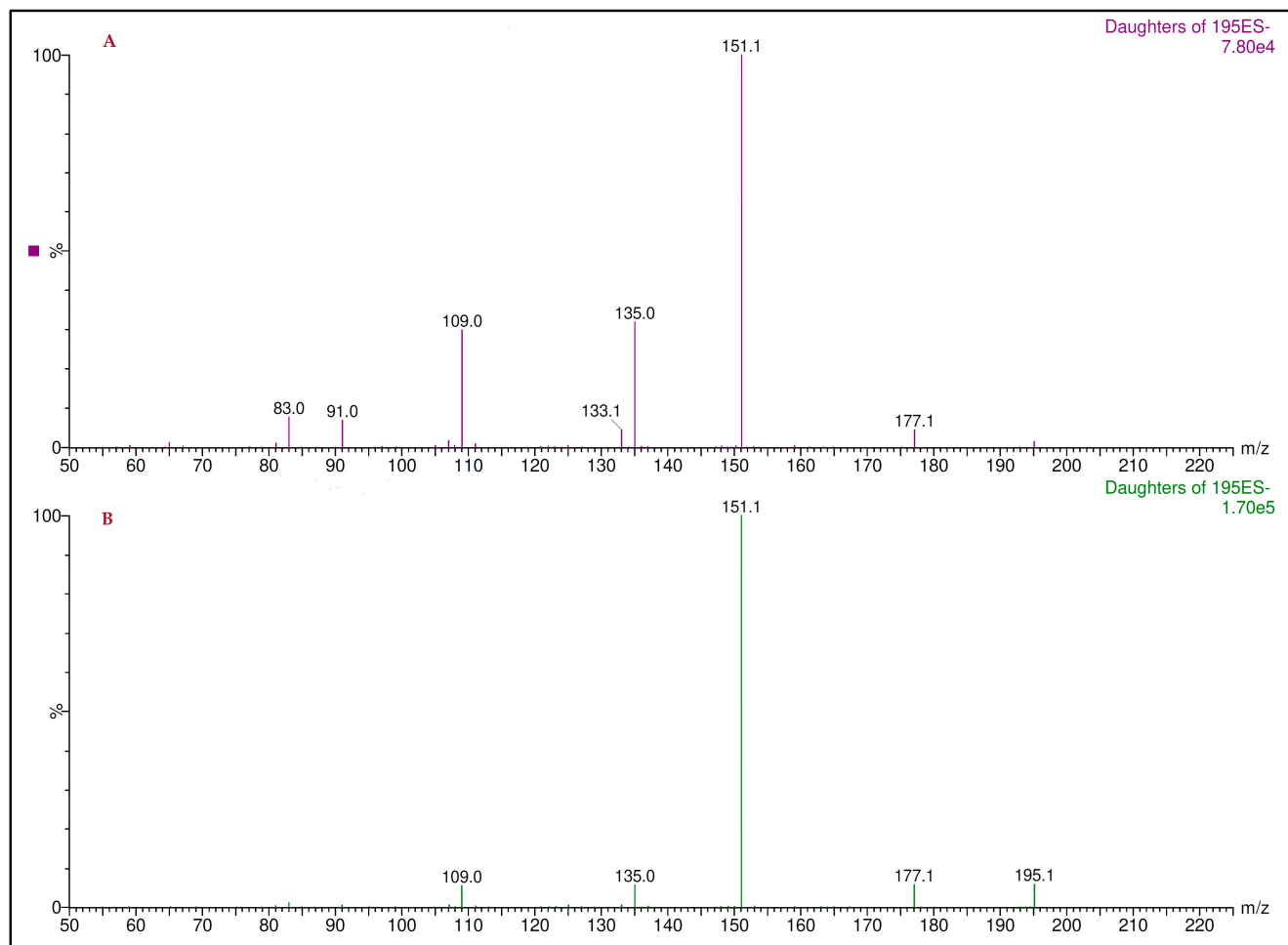
**Figure S1.** ESI-MS/MS spectra of  $m/z$  193 [M – H]<sup>–</sup>. Collision energy at 20 V.



**Figure S2.** ESI-MS/MS spectra of  $m/z$  189  $[M + H]^+$ . Collision energy at 20 V



**Figure S3.** ESI-MS/MS spectra of  $m/z$  195  $[M - H]^-$ : **A.** Collision energy at 15 V. **B.** Collision energy at 20 V.



**Figure S4.** ESI-MS/MS spectra of  $m/z$  343  $[M + H]^+$ . Collision energy at 32 V

