

Electronic Supplementary Materials:

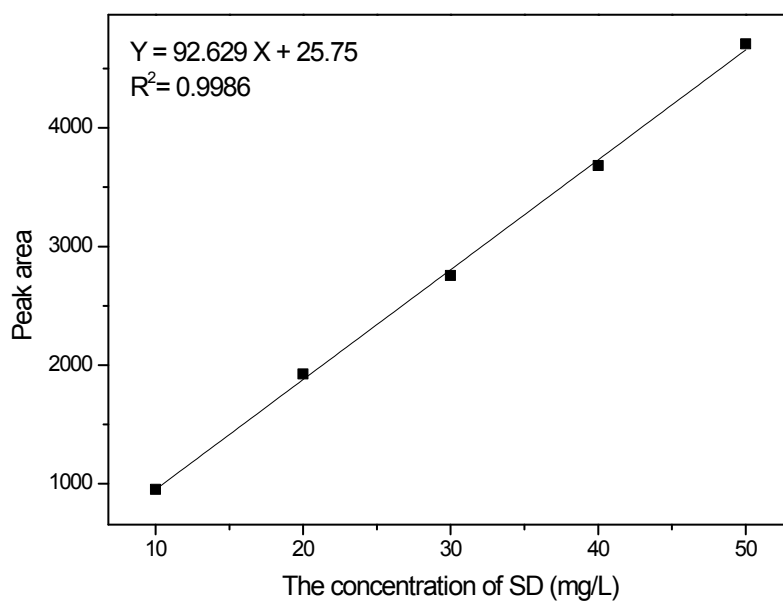


Fig.S1 Standard curve of SD(HPLC)

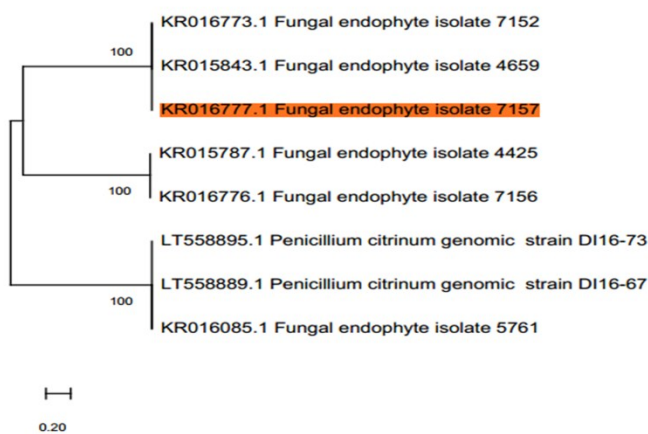


Fig.S2 Phylogenetic tree of strain Z3 (Fungal endophyte isolate 7156)

Table S1

Results of biochemical tests on microbial strain T2

Test	Phenomenon	Result
Catalase	oxygen	+
Indole	No change in colour	-
Methyl red	Faded to yellow	-
Starch hydrolysis	Hydrolysed	+

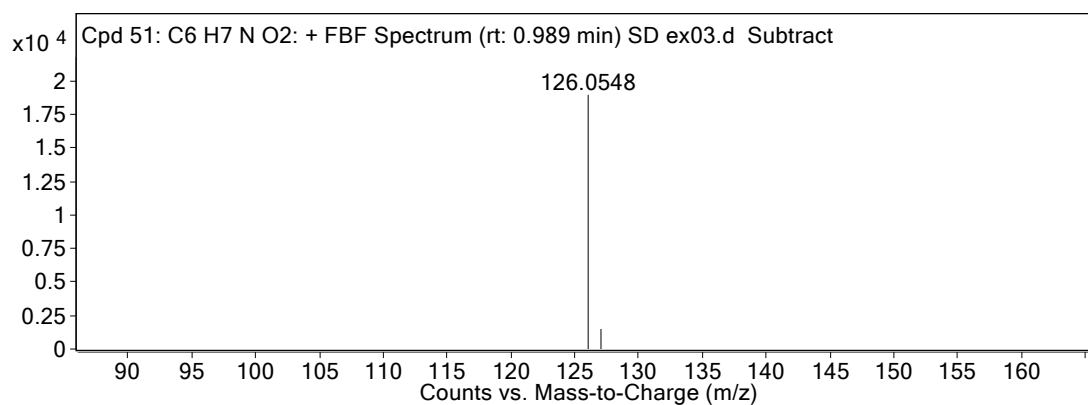
Table S2 Recoveries of sulfadiazine at different concentrations

Antibiotic	Initial concentration (mg·kg <sup>-1</sup> )	Recovery±SD (%)
sulfadiazine	40	79.22±4.25
	60	89.71±5.97
	100	92.49±3.94

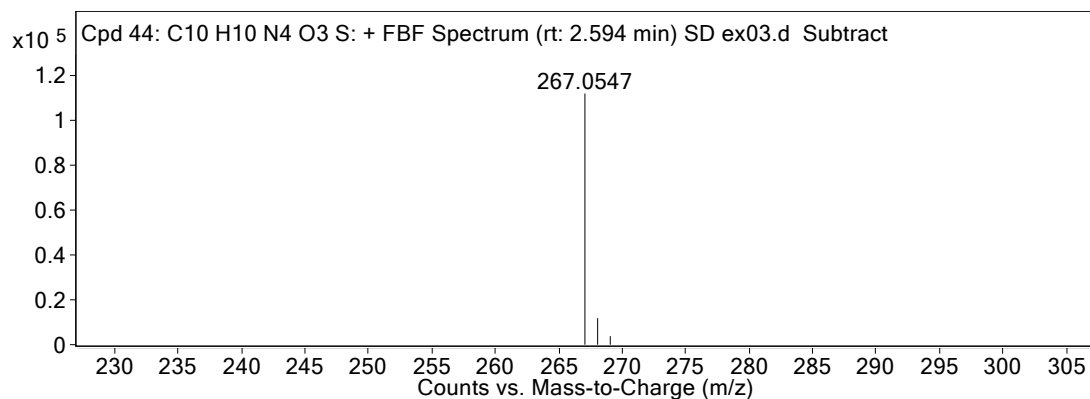
UPLC-Q-TOF-MS spectrum of SD intermediates (method 1)

Compound Label	<i>m/z</i>	RT	Algorithm	Mass
Cpd 51: C <sub>6</sub> H <sub>7</sub> N O <sub>2</sub>	126.0548	0.989	Find By Formula	125.04761

MS Zoomed Spectrum

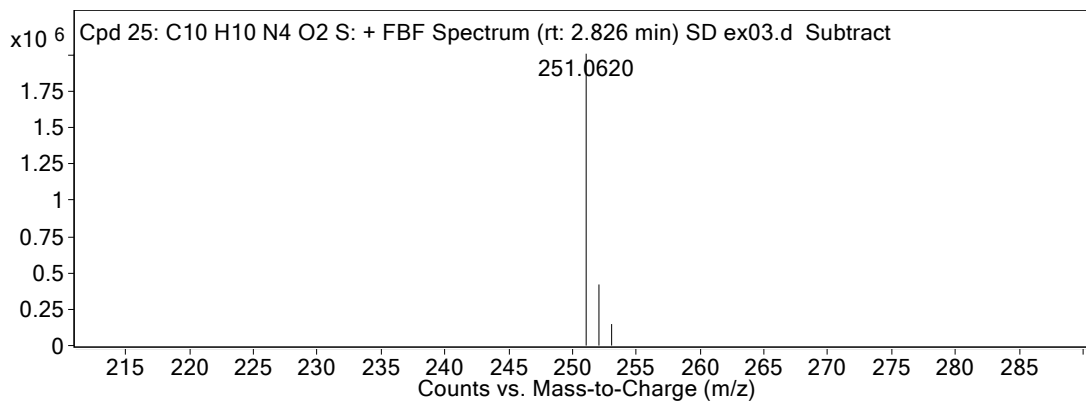


Compound Label	<i>m/z</i>	RT	Algorithm	Mass
Cpd 44: C <sub>10</sub> H <sub>10</sub> N <sub>4</sub> O <sub>3</sub> S	267.0547	2.594	Find By Formula	266.04749



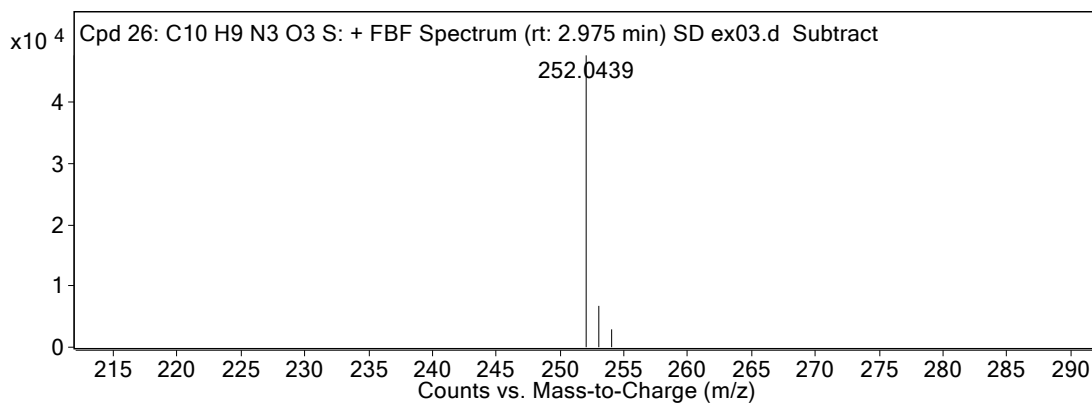
Compound Label	<i>m/z</i>	RT	Algorithm	Mass
Cpd 25: C <sub>10</sub> H <sub>10</sub> N <sub>4</sub> O <sub>2</sub> S	251.062	2.826	Find By Formula	250.0543

MS Zoomed Spectrum



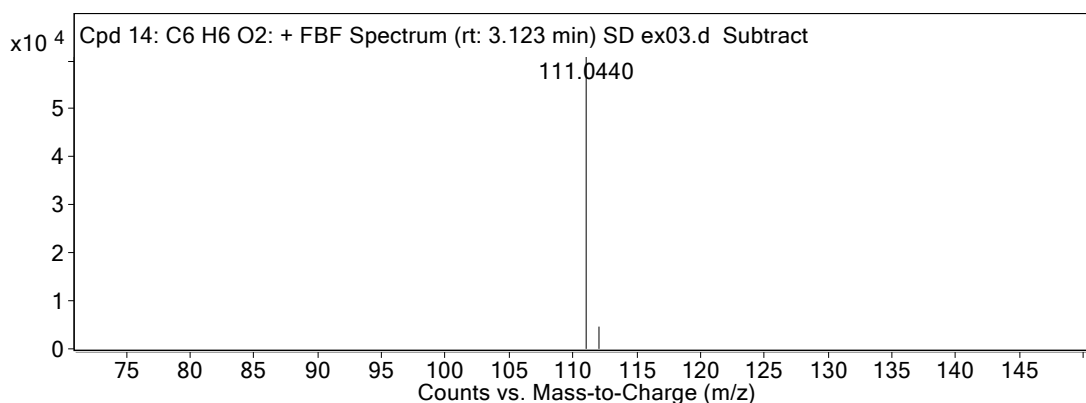
Compound Label	<i>m/z</i>	RT	Algorithm	Mass
Cpd 26: C <sub>10</sub> H <sub>9</sub> N <sub>3</sub> O <sub>3</sub> S	252.0439	2.975	Find By Formula	251.03503

MS Zoomed Spectrum



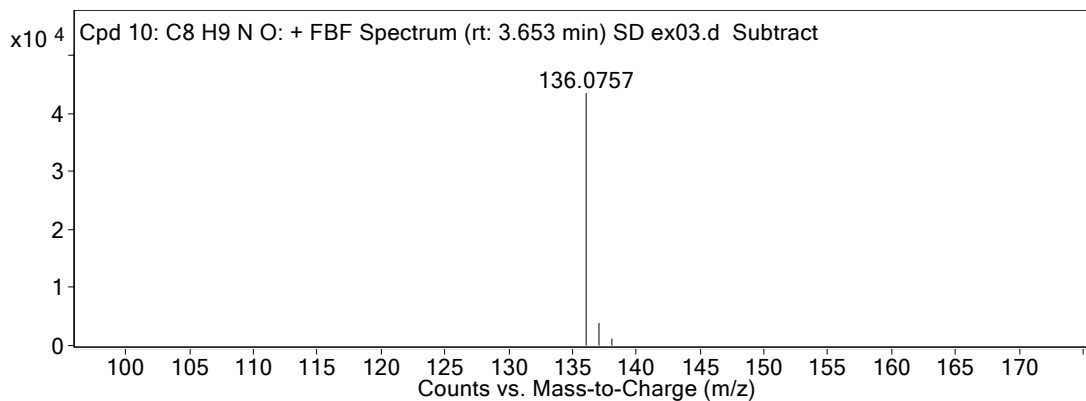
Compound Label	<i>m/z</i>	RT	Algorithm	Mass
Cpd 14: C <sub>6</sub> H <sub>6</sub> O <sub>2</sub>	111.044	3.123	Find By Formula	110.03675

MS Zoomed Spectrum

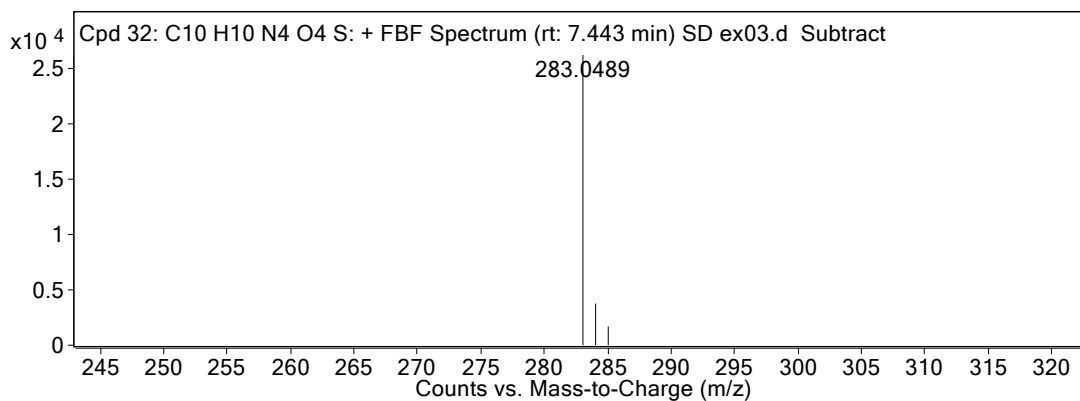


Compound Label	<i>m/z</i>	RT	Algorithm	Mass
Cpd 10: C <sub>8</sub> H <sub>9</sub> N O	136.0757	3.653	Find By Formula	135.06873

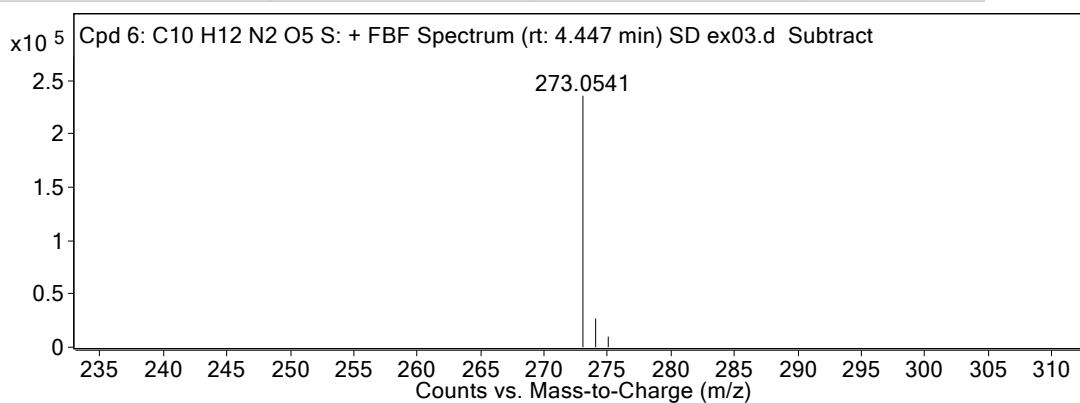
MS Zoomed Spectrum



Compound Label	<i>m/z</i>	RT	Algorithm	Mass
Cpd 32: C <sub>10</sub> H <sub>10</sub> N <sub>4</sub> O <sub>4</sub> S	283.0489	7.443	Find By Formula	282.04148

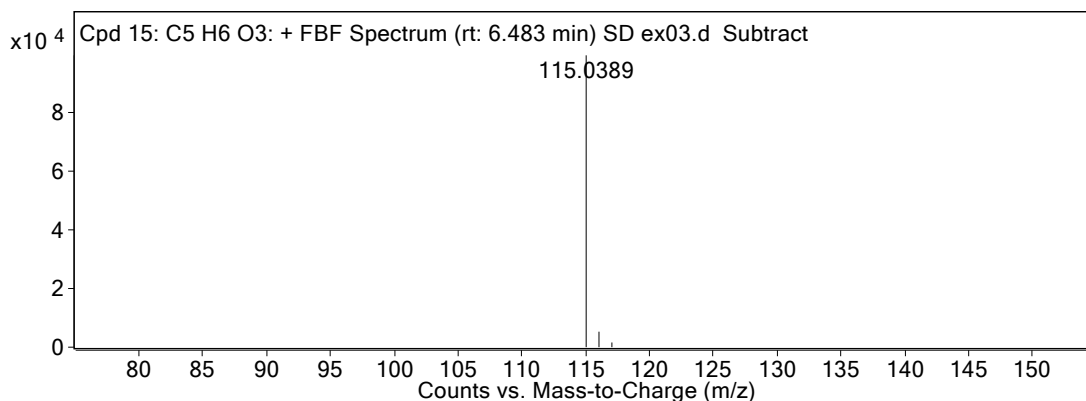


Compound Label	<i>m/z</i>	RT	Algorithm	Mass
Cpd 6: C <sub>10</sub> H <sub>12</sub> N <sub>2</sub> O <sub>5</sub> S	273.0541	4.447	Find By Formula	272.04678

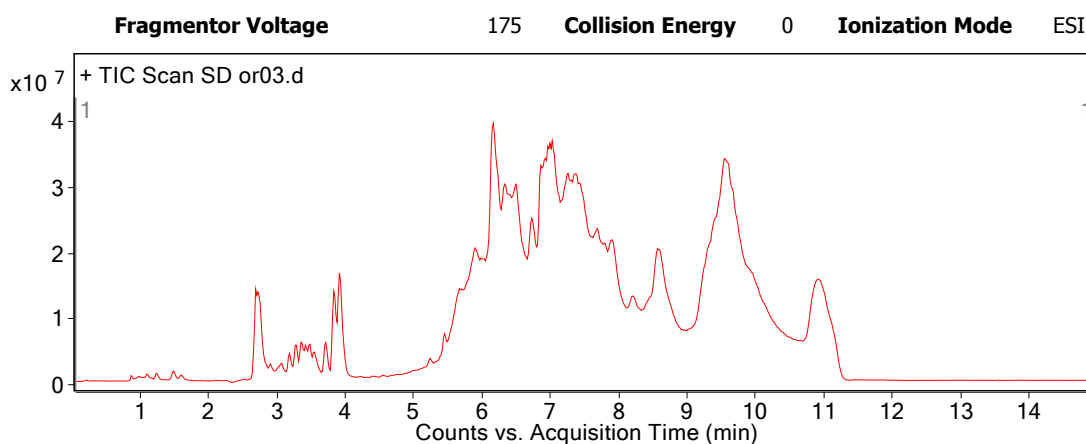


Compound Label	<i>m/z</i>	RT	Algorithm	Mass
Cpd 15: C <sub>5</sub> H <sub>6</sub> O <sub>3</sub>	115.0389	6.483	Find By Formula	114.03181

MS Zoomed Spectrum

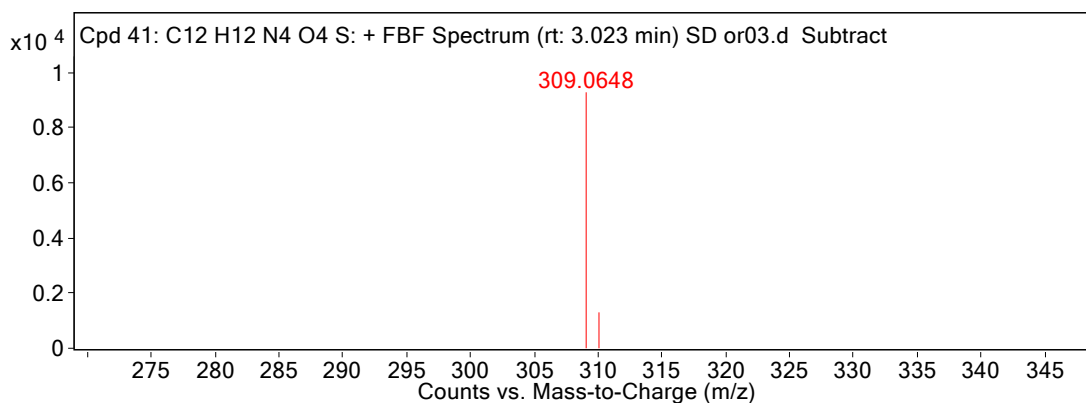


UPLC-Q-TOF-MS spectrum of SD intermediates (method 2)



Compound Label	<i>m/z</i>	RT	Algorithm	Mass
Cpd 41: C12 H12 N4 O4 S	309.0648	3.023	Find By Formula	308.05766

MS Zoomed Spectrum



Compound Label	<i>m/z</i>	RT	Algorithm	Mass
Cpd 27: C12 H12 N4 O3 S	293.0705	3.106	Find By Formula	292.06313

MS Zoomed Spectrum

