

Figure S1: Fragmentation pattern of DP3

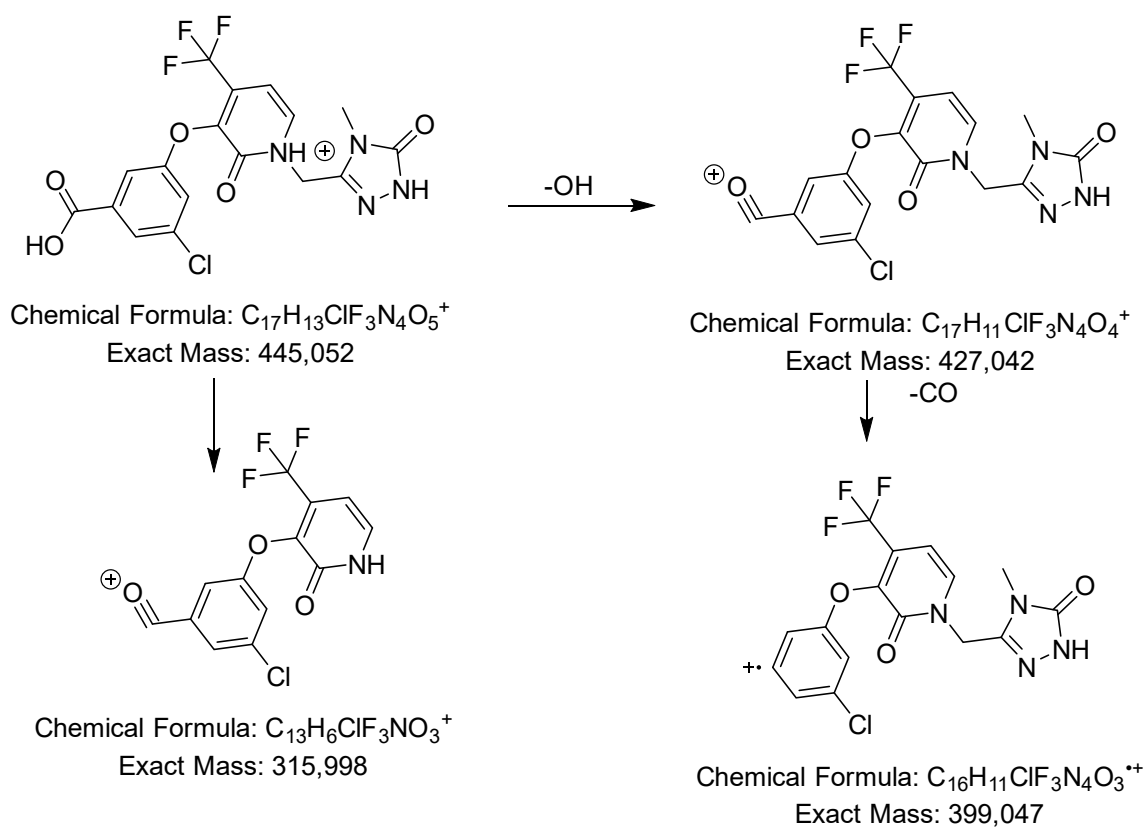


Figure S2 : LC-HRMS² of DOR

20220224_dora soleil-8 #2197 RT: 19.53 AV: 1 NL: 5.87E7
F: FTMS + p ESI d Full ms2 426,06@cid35,00 [105,00-440,00]

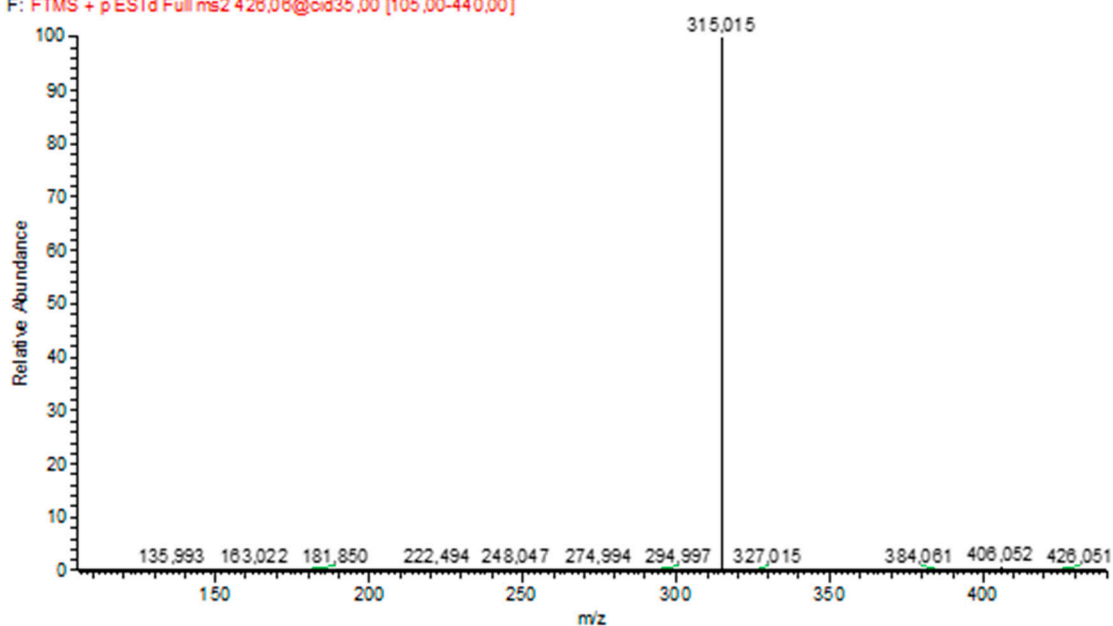


Figure S3 : Zoomed LC-HRMS² of DOR

20220224_dora soleil-8 #2187-2226 RT: 19,47-19,53 AV: 2 NL: 1,62E5
F: FTMS + p ESI d Full ms2 426,06@cid35,00 [105,00-440,00]

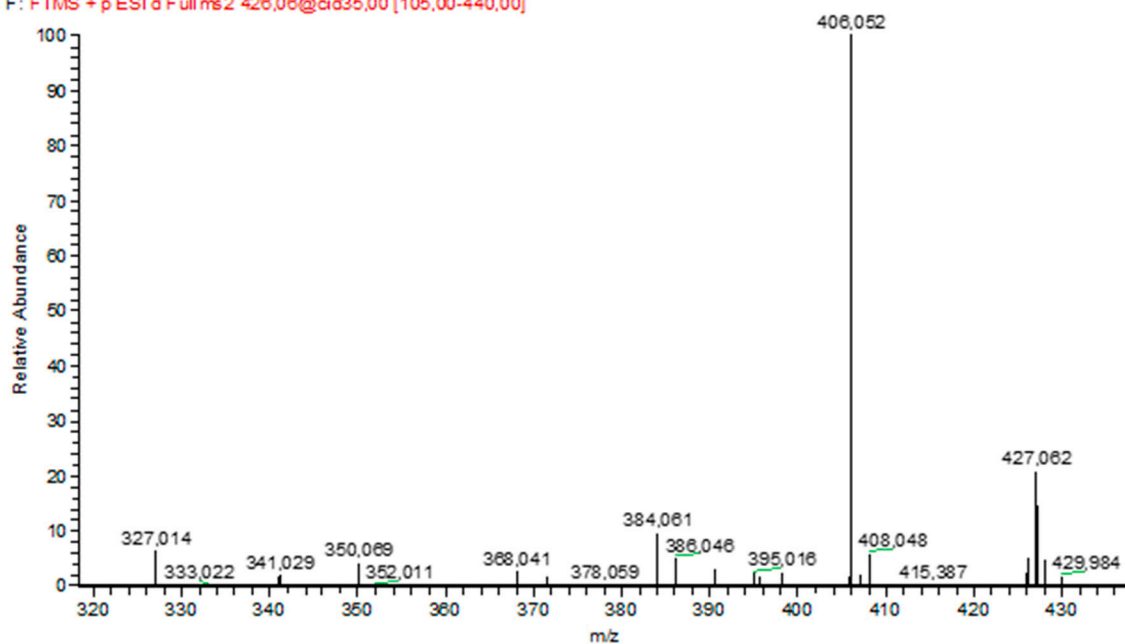


Figure S4: Zoomed LC-HRMS² of DOR

20220224_dora soleil-8 #2187-2226 RT: 19,47-19,53 AV: 2 NL: 1,11E5
F: FTMS + p ESI d Full ms2 426,06@cid35,00 [105,00-440,00]

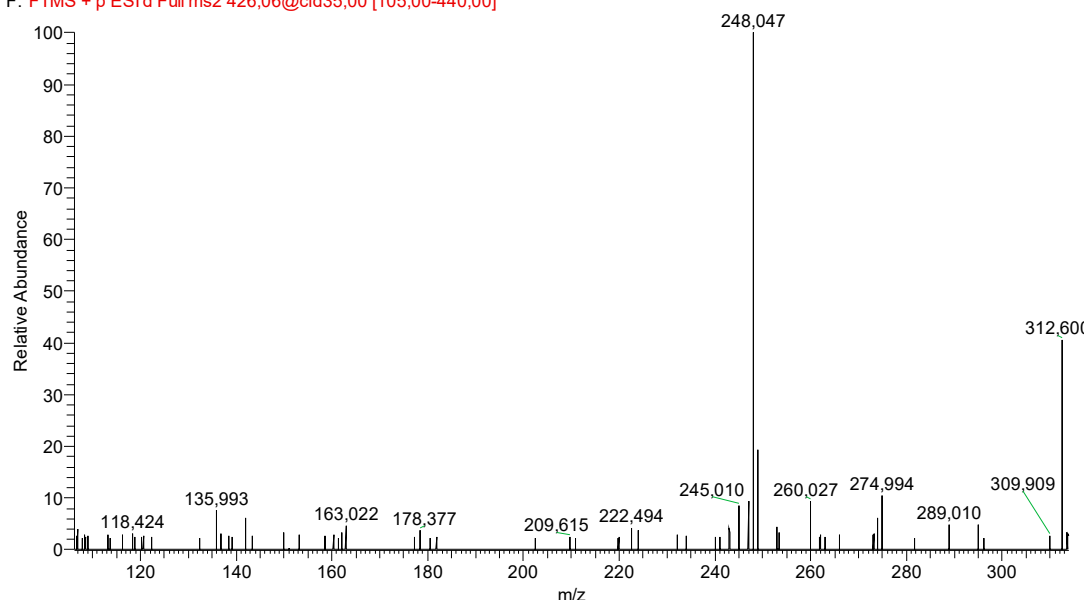


Figure S5: LC-HRMS spectra of DP1

20220224_naoh 0.1n-7 #1776 RT: 15.67 AV: 1 NL: 2,72E7

F: FTMS + p ESI Full ms [103,00-1400,00]

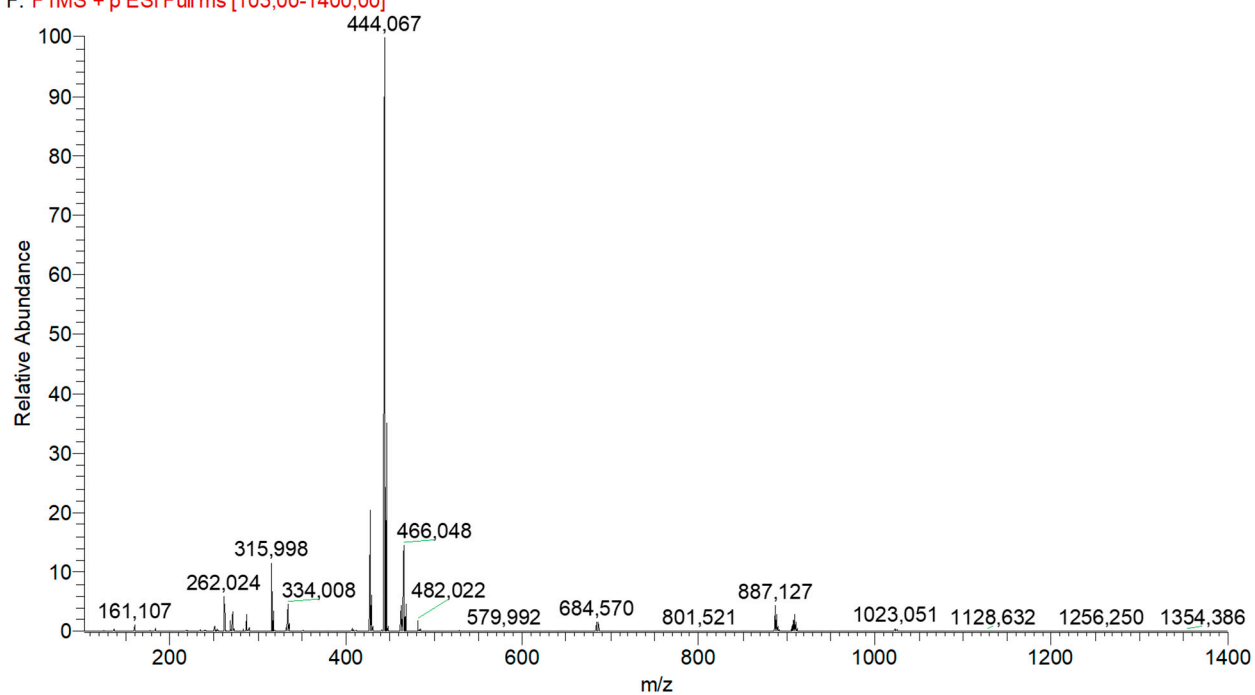


Figure S6 : LC-HRMS² spectra of DP1

20220224_naoh 0.1n-7 #1763 RT: 15.58 AV: 1 NL: 1,67E7

F: FTMS + p ESI d Full ms2 444.07@cid35,00 [110,00-455,00]

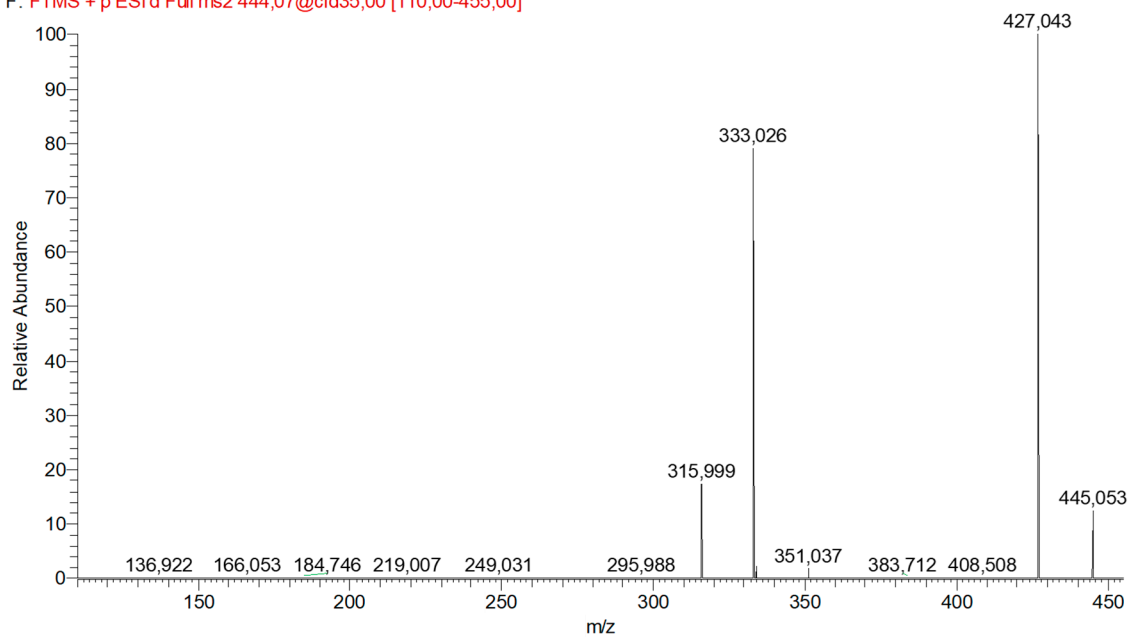


Figure S7: LC-HRMS³ of DP1 (444->427->)

20220224_naoh 0.1n-7 #1764 RT: 15.59 AV: 1 NL: 7.92E6

F: FTMS + p ESI d Full ms3 444,07@cid35,00 427,04@cid35,00 [105,00-440,00]

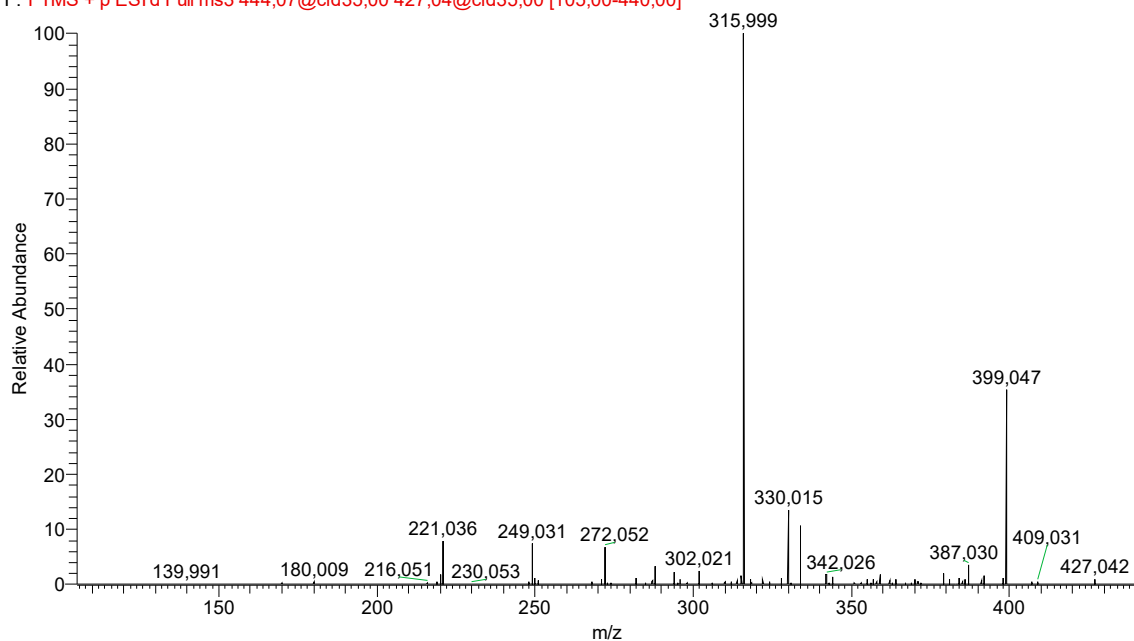


Figure S8: LC-HRMS spectra of DP3

20220224_naoh 0.1n-7 #1972 RT: 17.29 AV: 1 NL: 7.55E6

F: FTMS + p ESI Full ms [103,00-1400,00]

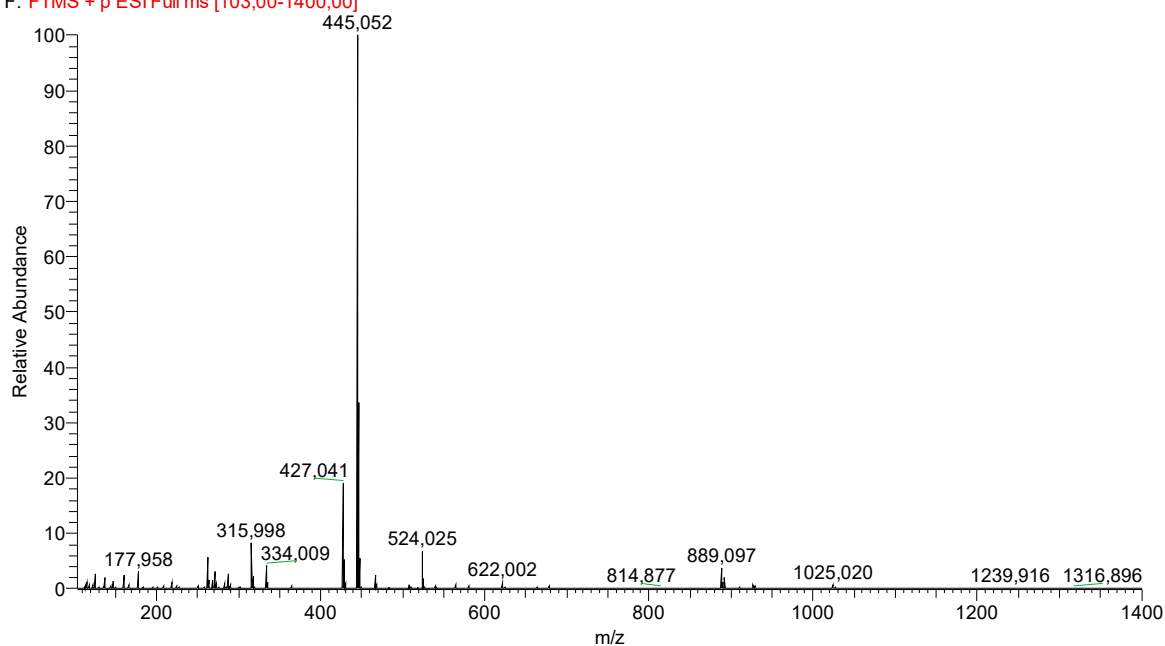


Figure S9: LC-HRMS² spectra of DP3

20220224_naoh 0.1n-7 #1959 RT: 17.19 AV: 1 NL: 7.33E5
F: FTMS + p ESI d Full ms2 445,05@cid35,00 [110,00-460,00]

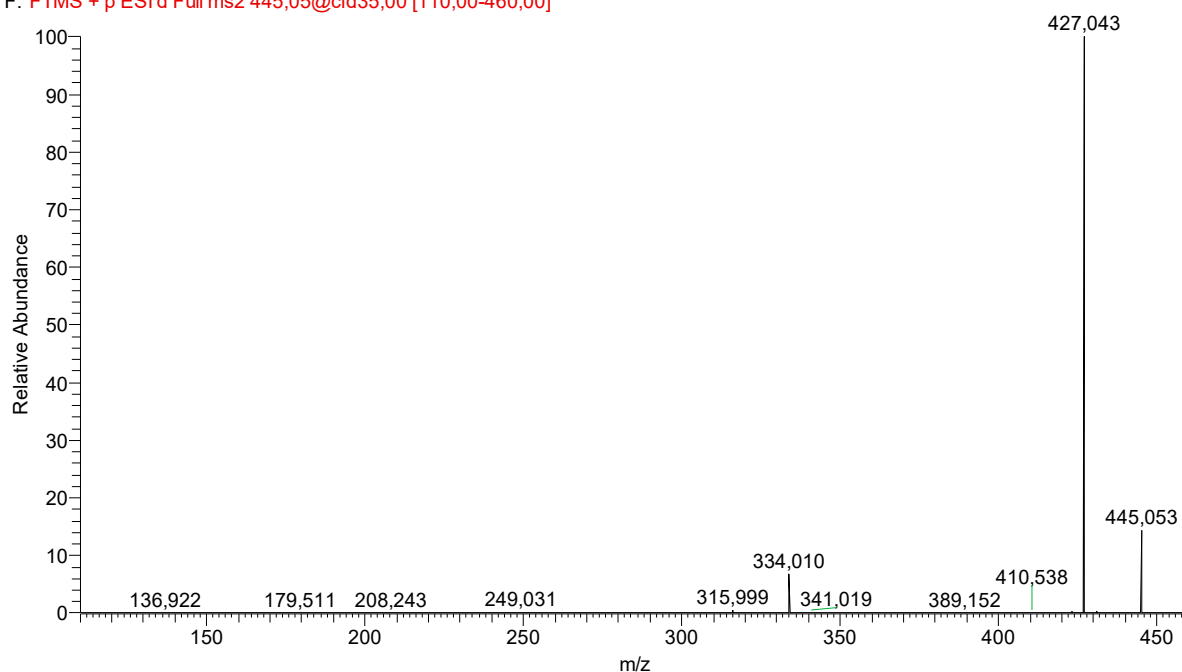


Figure S10: LC-HRMS² spectra of DP3 (445->427->)

20220224_naoh 0.1n-7 #1960 RT: 17.21 AV: 1 NL: 3.94E5
F: FTMS + p ESI d Full ms3 445,05@cid35,00 427,04@cid35,00 [105,00-440,00]

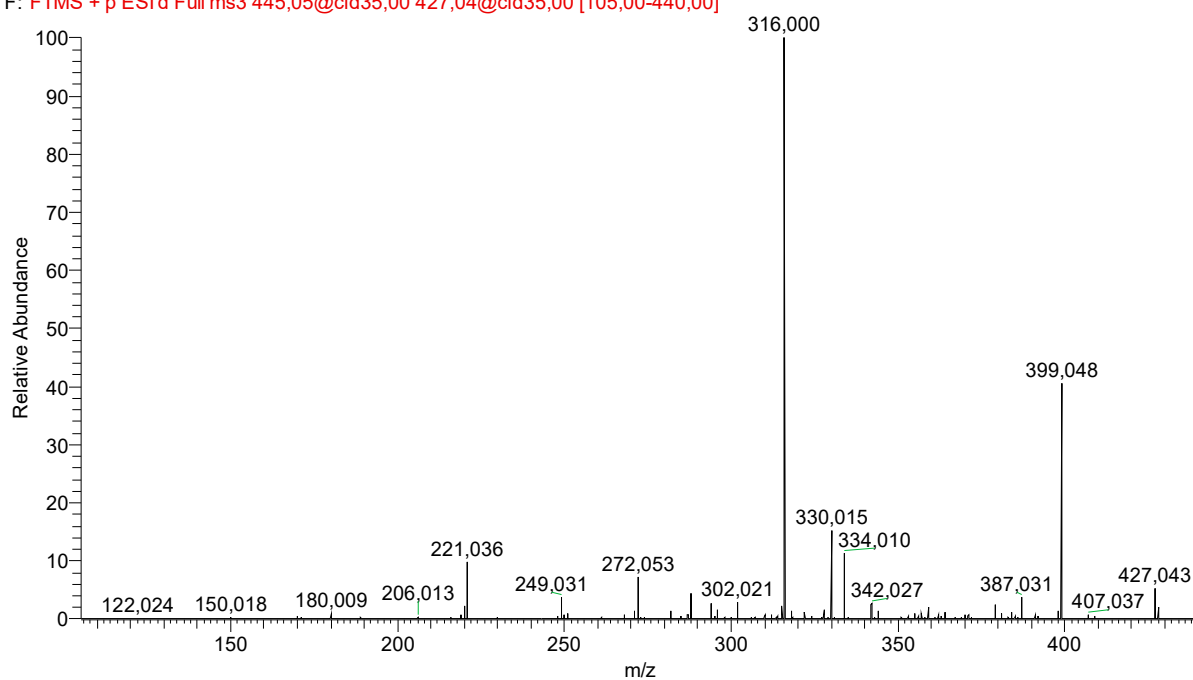


Figure S11: LC-HRMS spectra of DP2

20220224_dora photo 5h-9 #1833 RT: 16,39 AV: 1 NL: 4,52E7
F: FTMS + p ESI Full ms [103,00-1400,00]

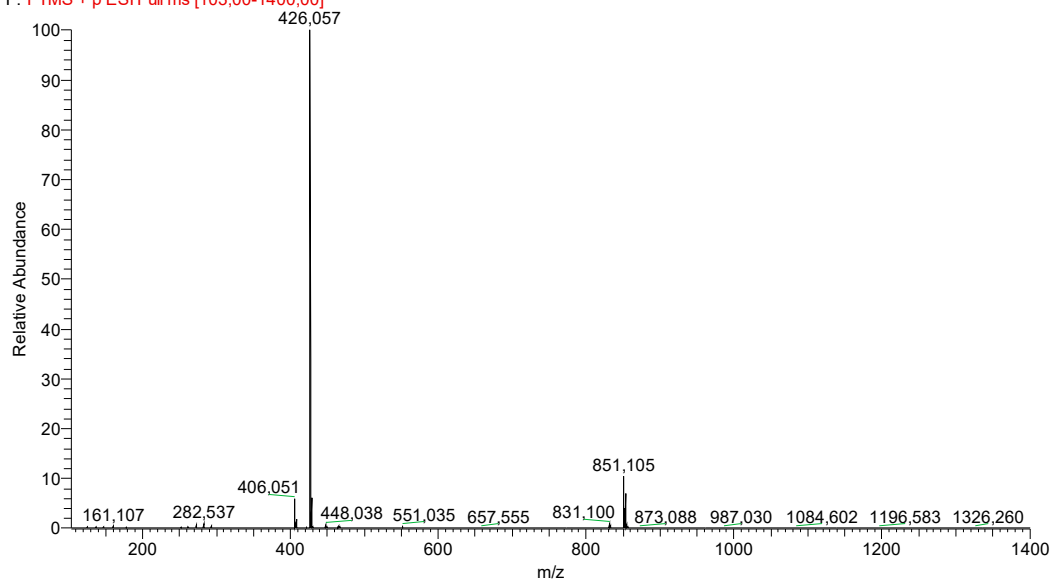


Figure S12: LC-HRMS² spectra of DP2

20220224_dora soleil-8 #1835 RT: 16,47 AV: 1 NL: 3,62E7
F: FTMS + p ESI d Full ms2 426,06@cid35,00 [105,00-440,00]

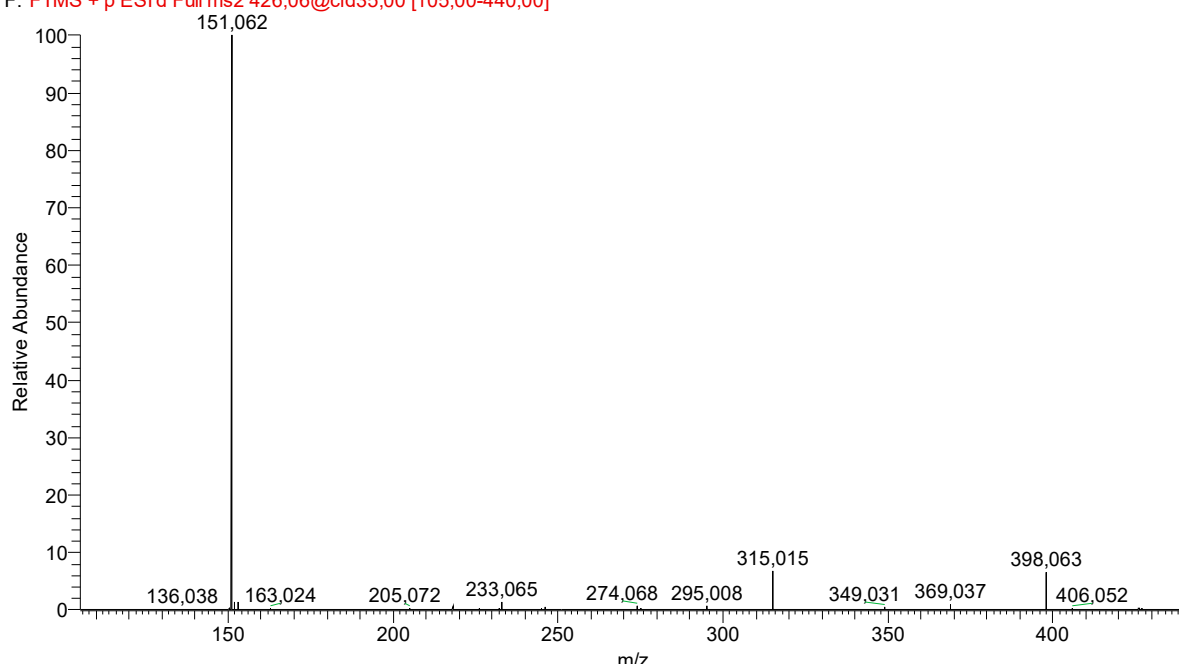


Figure S13: LC-HRMS² spectra of DP2

20220224_dora soleil-8 #1835 RT: 16,47 AV: 1 NL: 5,29E5
F: FTMS + p ESI d Full ms2 426,06@cid35,00 [105,00-440,00]

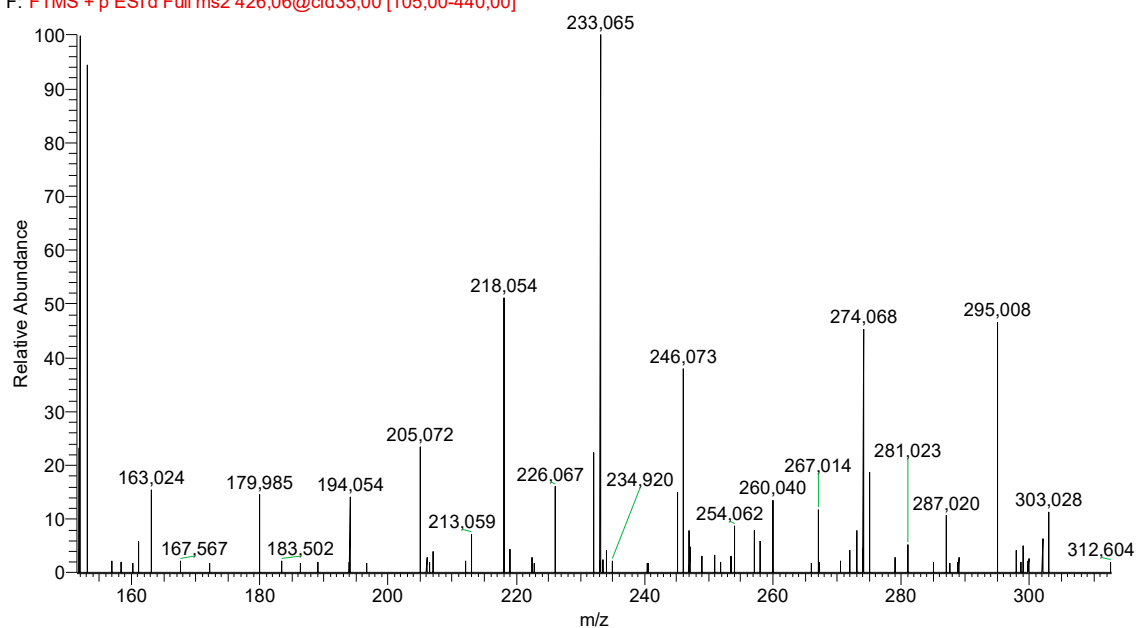


Figure S14: LC-HRMS spectra of DP4

20220224_Dora Soleil-8 #2272 RT: 20,11 AV: 1 NL: 4,45E7
F: FTMS + p ESI Full ms [103,00-1400,00]

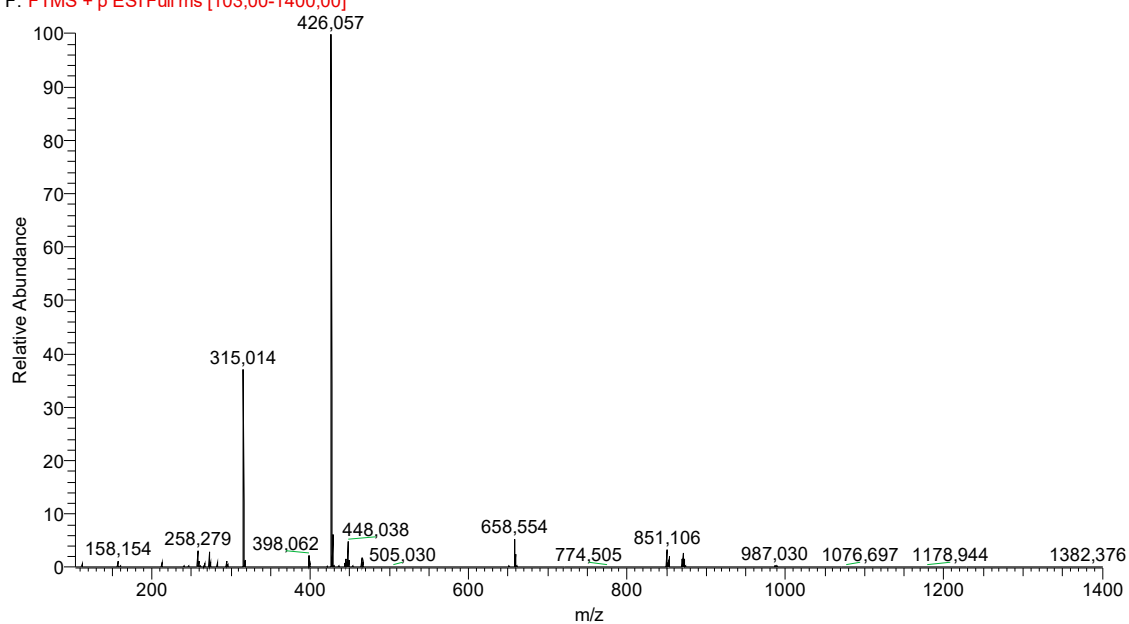


Figure S15: LC-HRMS² spectra of DP4

20220224_dora soleil-8 #2273 RT: 20,12 AV: 1 NL: 4,64E7
F: FTMS + p ESI d Full ms2 426,06@cid35,00 [105,00-440,00]

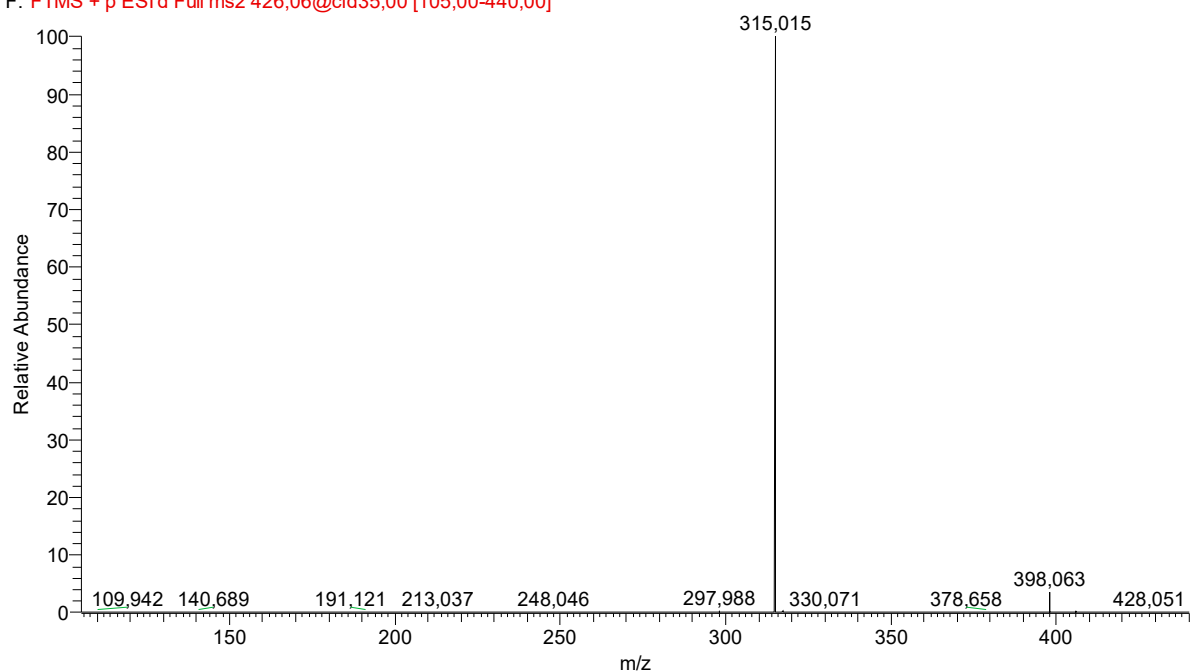


Table S1: Stress conditions applied for DOR

Stress conditions	Diluting solvent	Temperature (°C)	Duration (Hour)
Acid	0.1 N	RT	H0,H12, H24, H48
Basic	0.1 N	RT	H0,H12, H24, H48
Photolysis (1.50 W.m-2 at 420 nm)	H ₂ O	RT	H0, H0.5,H1,H1.5,H2
Oxidation	3.5% H ₂ O ₂	RT	H0,H12, H24, H48
Thermal	H ₂ O	80	H0,H12, H24, H48

H: hour; RT: room temperature

Table S2: Validation parameters for DOR quantification

<i>Parameters</i>		<i>Results</i>
Linearity		
<i>Drug:</i>	<i>Concentration range ($\mu\text{g mL}^{-1}$)</i>	[17.5 à 32.5]
	<i>Slope</i>	1.231
	<i>SD of Slope</i>	0.016
	<i>Intercept</i>	- 0.244
	<i>SD of Intercept</i>	0.780
	<i>Correlation coefficient (r)</i>	0.988
LOD ($\mu\text{g mL}^{-1}$)		0.025
LOQ ($\mu\text{g mL}^{-1}$)		0.080
Precision (RSD%, n=6)		
	<i>Inter-day</i>	1.34
	<i>Intra-day</i>	1.23
Accuracy		
<i>Drug:</i>	<i>% Recovery</i>	99.9
	<i>SD</i>	1.30
Stability of solution (24h) (n=6)		-1.4%

Table S3: Protocols for DOR stability studies

	Storage condition	Timeline for content variation analysis (Day)	Total impurities
<i>Repackaged DOR tablets in PVC blister</i>	20°C ± 2°C	D0, D1, D4, D7, D21, D30, D60, D90, D180	D0, D1, D4, D7, D21, D30, D60, D90, D180
<i>DOR tablets In the bottle opened once daily</i>	20°C ± 2°C	D0, D1, D4, D7, D21, D30, D60, D90, D180	D0, D1, D4, D7, D21, D30, D60, D90, D180
<i>DOR tablets out of the bottle</i>	20°C ± 2°C	D0, D1, D4, D7, D21, D30, D60, D90, D180	D0, D1, D4, D7, D21, D30, D60, D90, D180
<i>DOR tablets out of the bottle</i>	25°C, 60% Residual humidity	D0, D1, D4, D7, D21, D30, D60, D90, D180	D0, D1, D4, D7, D21, D30, D60, D90, D180
<i>DOR tablets out of the bottle</i>	40°C	D0, D1, D4, D7, D21, D30, D60, D90, D180	D0, D1, D4, D7, D21, D30, D60, D90, D180