DRM	Formula	Exact Mass Distribution	
Lapatinib	C ₂₉ H ₂₆ CIFN ₄ O ₄ S	581.1420	ere i et la di a Antonio fino di Appe
M1	C ₂₂ H ₂₁ CIN ₄ O ₄ S	473.1045	100 1 CF 3 ME 4 METRO Rep 8 Lypes 1 CF 3 METRO Rep 9 Lypes 1 CF 3 METRO
M2	C ₂₆ H ₁₈ CIFN ₄ O ₂	473.1175	100 1 (25) 103 4 M (200 M to 10 4 pages 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
M4	C ₂₆ H ₂₀ CIFN ₄ O ₂	475.1332	100 100 NOTE A MINISTRA BASE NAME OF THE STATE OF THE STA
M8	C ₂₉ H ₂₆ CIFN ₄ O ₅ S	597.1369	100 1 00 1 00 1 00 1 0 0 0 0 0 0 0 0 0
M9/10	C ₂₆ H ₁₈ CIFN ₄ O ₃	489.1124	100 1 000 1
M11	C ₂₆ H ₁₇ CIFN ₃ O ₃	474.1015	no I chi sto a Addition foo a Lapon
M12	C ₂₆ H ₁₇ CIFN ₃ O ₄	490.0964	100 - 004-004 - 8-8-00000 flow 1 supra
	C ₂₆ H ₁₇ CIFN ₃ O ₂	458.1066	00 1 05 100 10 10 10 10 10 10 10 10 10 10 10 10
	C ₂₆ H ₁₉ CIFN ₃ O ₂	460.1223	100 1 40 A 100 A 1
	C ₂₂ H ₁₉ CIN ₄ O ₄ S	471.0888	00 (C) 100 (C)
	C ₂₇ H ₂₀ CIFN ₄ O ₃	503.1281	1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1

Supplemental Fig. S1 Ion maps for all drug related material (lapatinib and metabolites) that were observed from the preliminary IR-MALDESI MSI analysis

DRM	Formula	Exact Mass [M+H] ⁺	Distribution	DRM	Formula	Exact Mass [M+H] ⁺	Distribution
Lapatinib	C ₂₉ H ₂₆ CIFN ₄ O ₄ S	581.1420			C ₂₆ H ₁₇ CIFN ₃ O ₂	458.1066	2
M1	C ₂₂ H ₂₁ CIN ₄ O ₄ S	473.1045	2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -		C ₂₆ H ₁₉ CIFN ₃ O ₂	460.1223	2
M2	C ₂₆ H ₁₈ CIFN ₄ O ₂	473.1175	and control to distill the bit begins		C ₂₂ H ₁₉ CIN ₄ O ₄ S	471.0888	A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
МЗ	C ₂₂ H ₂₁ CIN ₄ O ₅ S	489.0994	and control at a control to the state of		C ₂₂ H ₁₉ CIN ₄ O ₄ S	476.1172	2
M4	C ₂₆ H ₂₀ CIFN ₄ O ₂	475.1332	100 (100 to 100		C ₂₅ H ₁₉ CIN ₃ O ₄	480.1121	and the relationships to the second s
M5	C ₂₉ H ₂₄ CIFN ₄ O ₄ S	579.1264	non 1/20 COLE A MONTH had Tapes		C ₂₆ H ₂₀ CIFN ₄ O ₃	491.1281	2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
M6/7	C ₂₉ H ₂₄ CIFN ₄ O ₅ S	595.1213	00 100 100 100 100 100 100 100 100 100		C ₂₇ H ₂₀ CIFN ₄ O ₃	503.1281	2
M8	C ₂₉ H ₂₆ CIFN ₄ O ₅ S	597.1369	and the Control to American States		C ₂₆ H ₁₈ CIFN ₄ O ₅ S	553.0743	0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
M9/10	C ₂₆ H ₁₈ CIFN ₄ O ₃	489.1124	100 (40 CH 10 CH 1		C ₃₀ H ₂₆ CIFN ₄ O ₅ S	625.1318	
M11	C ₂₆ H ₁₇ CIFN ₃ O ₃	474.1015	2 of		C ₃₂ H ₂₆ CIFN ₄ O ₈	649.1496	2
M12	C ₂₆ H ₁₇ CIFN ₃ O ₄	490.0964	00 00 00 00 00 00 00 00 00 00 00 00 00		C ₃₂ H ₂₆ CIFN ₄ O ₉	665.1445	2
					C ₃₂ H ₂₅ CIFN ₃ O ₁₀	666.1285	1
					C ₃₃ H ₂₈ CIFN ₄ O ₉	679.1602	40 - 40 - 40 - 40 - 40 - 40 - 40 - 40 -
					C ₃₆ H ₃₄ CIFN ₄ O ₁₂ S	801.1639	and the vest terminal but terminal term

Supplemental Fig. S2 Ion maps for all drug related material (lapatinib and metabolites) that were observed from the UV-MALDI MSI analysis

DRM	Formula	Exact Mass [M+H] ⁺	Distribution
Lapatinib	C ₂₉ H ₂₆ CIFN ₄ O ₄ S	581.1420	and off to the statement find a paper.
M1	C ₂₂ H ₂₁ CIN ₄ O ₄ S	473.1045	on channel have got
M2	C ₂₆ H ₁₈ CIFN ₄ O ₂	473.1175	
МЗ	C ₂₂ H ₂₁ CIN ₄ O ₅ S	489.0994	
M4	C ₂₆ H ₂₀ CIFN ₄ O ₂	475.1332	
M8	C ₂₉ H ₂₆ CIFN ₄ O ₅ S	597.1369	and the final terminal that agent
M9/10	C ₂₆ H ₁₈ CIFN ₄ O ₃	489.1124	and the Control of the Appendix of the Control of t
M11	C ₂₆ H ₁₇ CIFN ₃ O ₃	474.1015	and the second s
M12	C ₂₆ H ₁₇ CIFN ₃ O ₄	490.0964	00 - 1

DRM	Formula	Exact Mass [M+H] ⁺	Distribution
	C ₂₆ H ₁₇ CIFN ₃ O ₂	458.1066	and of water a second to be a second
	C ₂₂ H ₁₉ CIN ₄ O ₄ S	476.1172	
	C ₂₇ H ₂₀ CIFN ₄ O ₃	503.1281	
	$C_{30}H_{26}CIFN_4O_5S$	625.1318	
	C ₃₅ H ₃₄ CIFN ₄ O ₁₁ S	773.1690	
	C ₃₆ H ₃₄ CIFN ₄ O ₁₂ S	801.1639	

Supplemental Fig. S3 Ion maps for all drug related material (lapatinib and metabolites) that were observed from the optimized IR-MALDESI MSI analysis