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HEART-CUT 2DSEC-RP-LC-ICP-MS AS A SCREENING TOOL IN METAL-BASED ANTICANCER RESEARCH

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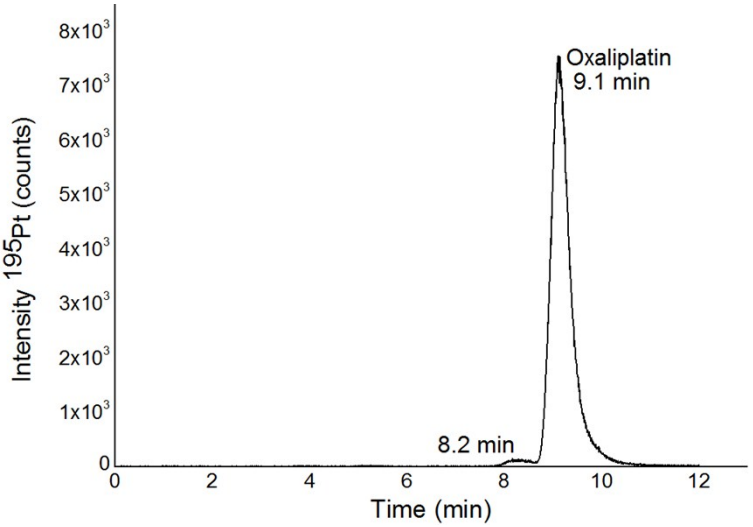

Figure S1 UHPLC SEC-ICP-MS separation of oxaliplatin 2 µM in NaCl 15 mM at a flow rate of 250 µL/min in isocratic mode with 20 mM CH_3COONH_4, pH = 7. A hydrolysis product was observed at 8.2 min. Oxaliplatin was observed at 9.1 min.

Table S1 HILIC-ICP-MS operation parameters and chromatographic conditions for the stability study of oxaliplatin.

Agilent 1260 infinity Bio-inert		
Chromatographic conditions		
Eluent	A 50 mM $HCOONH_4$, pH = 4.0,	
	B 80% ACN 50 mM HCOONH4, pH = 5.0	
HILIC Column	Acquity UPLC BEH Amide (2.1 x 100 mm, 1.7 µm)	
Flow Rate	250 µL/min	
Injection Volume	5 µL	
Autosampler Temperature	4°C	
Gradient Elution		
Time (min)	A (%)	B (%)
0	0	100
2	0	100
8	50	50
10	50	50
10	0	100
15	0	100
ICP-MS Triple Quadrupole Agilent 8800		
Nebulizer	MicroMist	
Spray chamber	Scott double-pass	
Nebulizer gas flow	1.05 L/min	
Plasma gas	15 L/min	
ICP RF Power	1550 W	
Carrier Ar gas	0.70 L/min	
Option O_2 gas	0.50 L/min	
m/z measured	195	

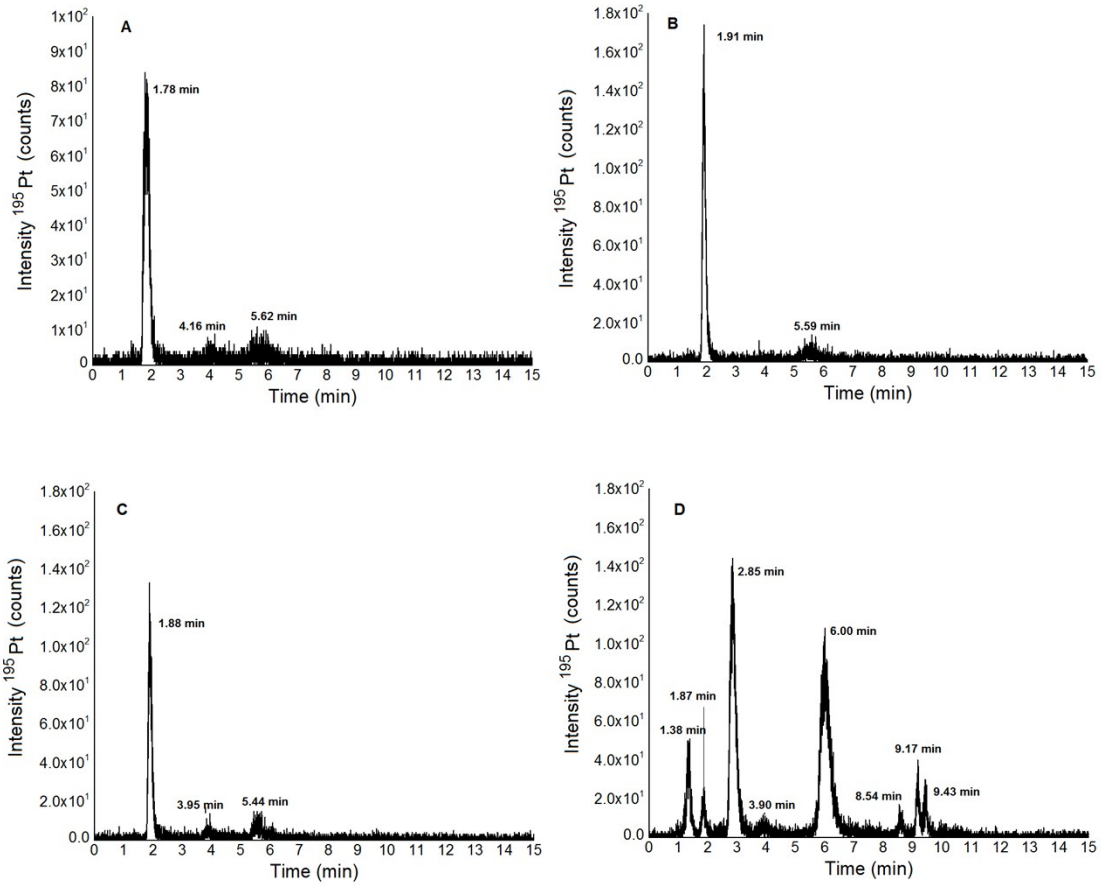

Figure S2 Chromatographic separations with the HILIC-ICP-MS method of (A) oxaliplatin 0.5 µM in glucose 5% (w/v) (B) oxaliplatin 0.5 µM in MeOH (80% methanol, 20% water, v/v) stored at -80°C for 96h (C) oxaliplatin 0.5 µM in ACN (50% ACN, 50% water, v/v) (D) 200 µL oxaliplatin 0.5 µM in MeOH (80% methanol, 20% water, v/v) evaporated in a speedvac and reconstituted in 50 µL ACN (50% ACN, 50% water, v/v).