## Supporting information

for

## Platinum Transfer from hCTR1 to Atox1 Is Dependent on the Type of Platinum Complexes

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Table S1.	The	mass	spectra	analysis	of	the	products	from	the	reaction	of	Atox1	with
cisplatin/C8	3.		-	-									

Composition	Formula	m/z (oborgo)	Molecular Weight			
Composition	Formula	m/z (charge)	observed	calculated		
Atox1	$C_{332}H_{547}N_{89}O_{106}S_6$	1097.13 (+7)	7673.94	7673.92		
Atox1+Pt	$C_{332}H_{547}N_{89}O_{106}S_6Pt$	1312.14 (+6)	7868.94	7868.98		
Atox1+Pt(NH <sub>3</sub> )	$C_{332}H_{550}N_{90}O_{106}S_6Pt$	1314.98 (+6)	7885.88	7886.02		
Atox1+Pt <sub>2</sub> (C8)	$C_{371}H_{608}N_{101}O_{120}S_7Pt_2$	1289.13 (+7)	9016.94	9018.03		
Atox1+Pt <sub>2</sub> (NH <sub>3</sub> )(C8)	$C_{371}H_{611}N_{102}O_{120}S_7Pt_2$	1291.18 (+7)	9034.26	9035.06		
Atox1+Pt <sub>2</sub> (NH <sub>3</sub> ) <sub>2</sub> (C8)	$C_{371}H_{614}N_{103}O_{120}S_7Pt_2$	1293.61 (+7)	9051.27	9052.09		
Atox1+Pt <sub>2</sub> (NH <sub>3</sub> ) <sub>3</sub> (C8)	$C_{371}H_{617}N_{104}O_{120}S_7Pt_2$	1296.04(+7)	9068.28	9069.12		
Atox1+Pt <sub>2</sub> (C8) <sub>2</sub>	$C_{410}H_{669}N_{113}O_{134}S_8Pt_2$	1246.95 (+8)	9971.60	9972.02		
Atox1+Pt <sub>2</sub> (NH <sub>3</sub> )(C8) <sub>2</sub>	$C_{410}H_{672}N_{114}O_{134}S_8Pt_2$	1249.08 (+8)	9988.64	9989.07		
Atox1+Pt <sub>2</sub> (NH <sub>3</sub> ) <sub>2</sub> (C8) <sub>2</sub>	$C_{410}H_{675}N_{115}O_{134}S_8Pt_2$	1251.21(+8)	10005.68	10006.10		
Atox1+ Pt <sub>3</sub> (NH <sub>3</sub> )(C8) <sub>3</sub>	$C_{449}H_{733}N_{126}O_{148}S_9Pt_3$	1392.38(+8)	11137.04	11137.97		
Atox1+Pt <sub>3</sub> (NH <sub>3</sub> ) <sub>2</sub> (C8) <sub>3</sub>	$C_{449}H_{736}N_{127}O_{148}S_9Pt_3$	1394.38(+8)	11153.04	11154.99		
Atox1+Pt <sub>3</sub> (NH <sub>3</sub> ) <sub>3</sub> (C8) <sub>3</sub>	$C_{449}H_{739}N_{128}O_{148}S_9Pt_3$	1396.38(+8)	11169.04	11171.07		



**Figure S1**. HPLC profiles of C8 in the reaction with platinum complexes. (A) cisplatin; (B) transplatin; (C) oxaliplatin. Samples were analyzed on HPLC equipped with a Jupiter C18 reverse phase column (250 mm  $\times$  4.6 mm, 5 mm) and the data were recorded with the UV detection at 280 nm. The kinetic process of the reaction between cisplatin and C8 is consistent with our previous work (reference 14 in the main text), although the shapes HPLC profiles vary due to different columns were used.



**Figure S2**. Full <sup>1</sup>H,<sup>15</sup>N-HSQC NMR spectra recorded on 0.5 mM Atox1 before (red) and after (blue) reaction with 2 molar equivalents of cisplatin/C8 at 20  $^{\circ}$ C for 1 h in 20 mM sodium phosphate buffer.



**Figure S3.** ESI-MS analysis of products from the reaction of Atox1 with oxaliplatin/C8 for 10 h. The reaction was carried out on Atox1 with 3 molar equivalents of platinated C8 at 37  $\,^{\circ}$ C in 20 mM sodium phosphate buffer.