Supporting Information

Platinum(IV) loaded degraded glycol chitosan as efficient platinum(IV) drug delivery platform

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Table of Contents

1. **NMR spectra of platinum(IV) complexes** 2
2. **NMR spectra of dGC polymers** 8
3. **NMR spectra of conjugates** 9
4. **Concentration-effect curves** 13
5. **Solubility data** 16

1. NMR spectra of platinum(IV) complexes

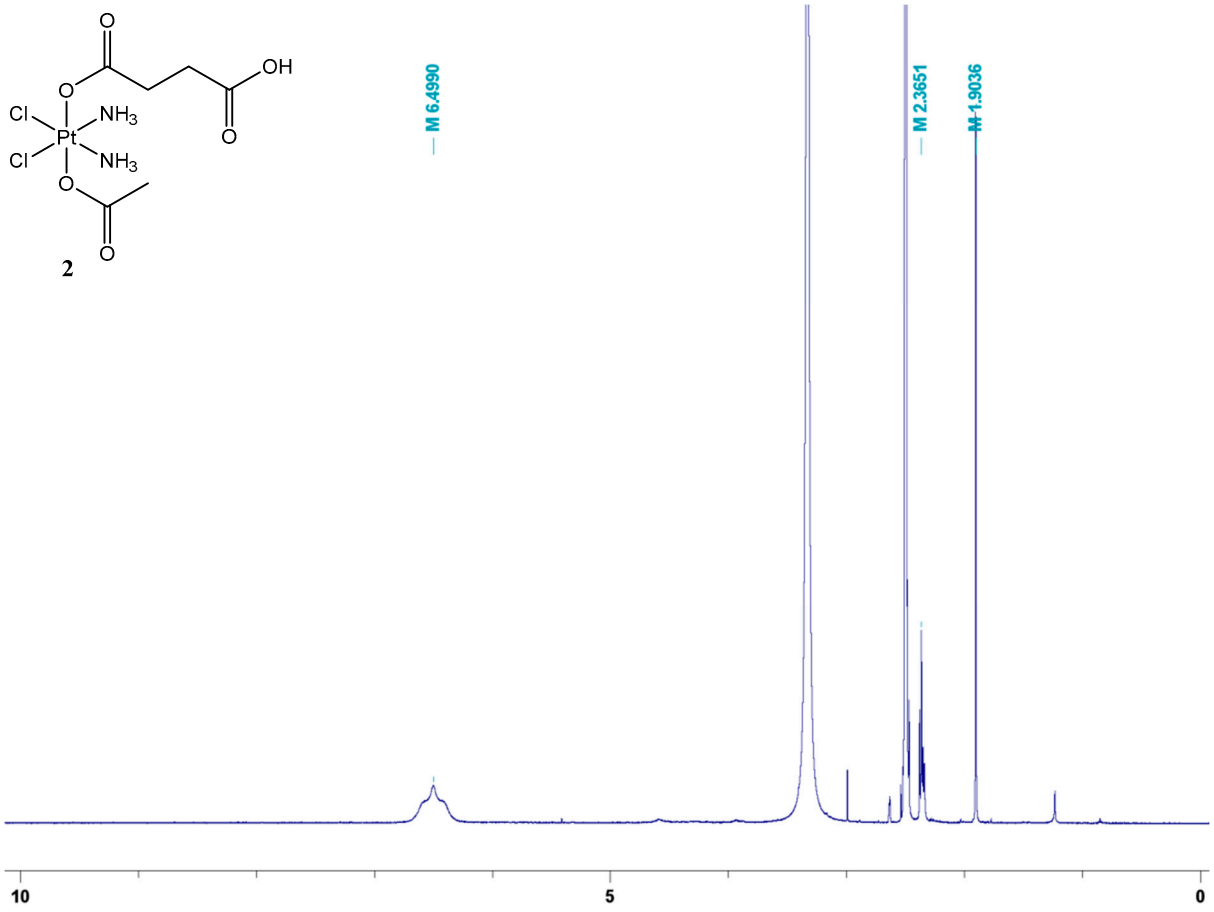

Figure S1. ^{1}H NMR spectrum of complex **2** in d_6-DMSO.

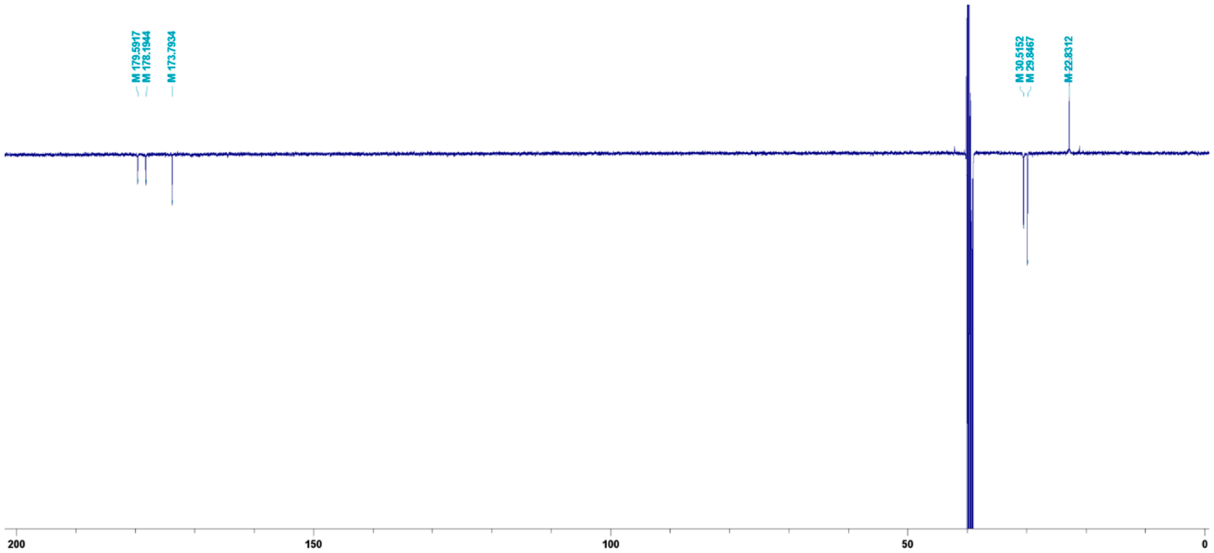

Figure S2. ^{13}C NMR spectrum of complex **2** in d_6-DMSO.

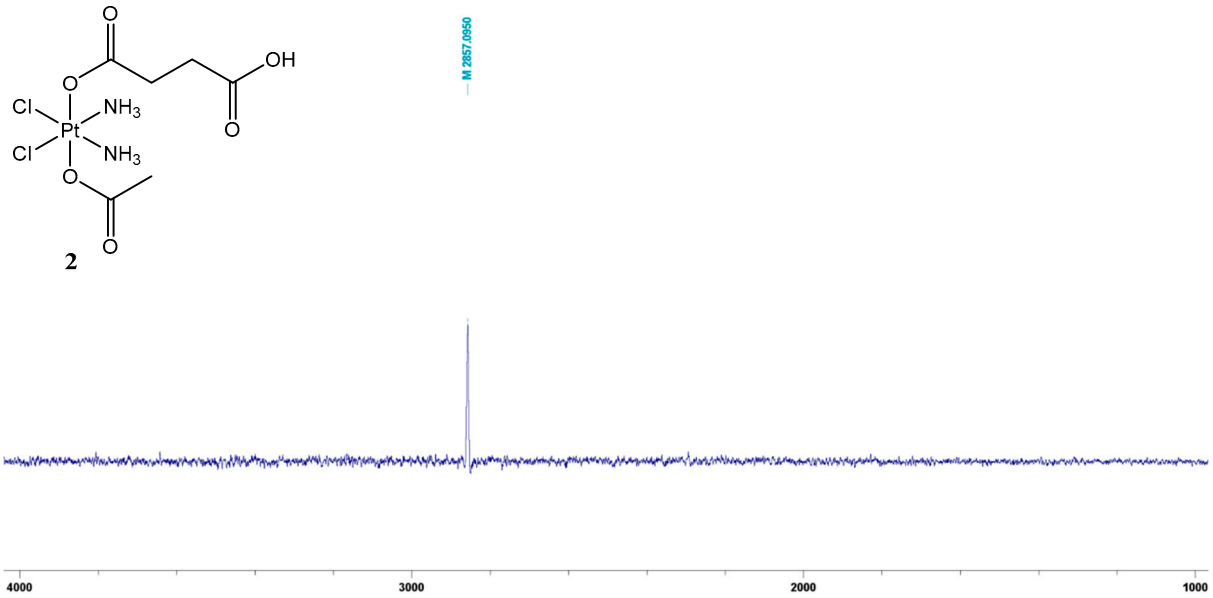

Figure S3. ^{195}Pt NMR spectrum of complex **2** in d_6-DMSO.

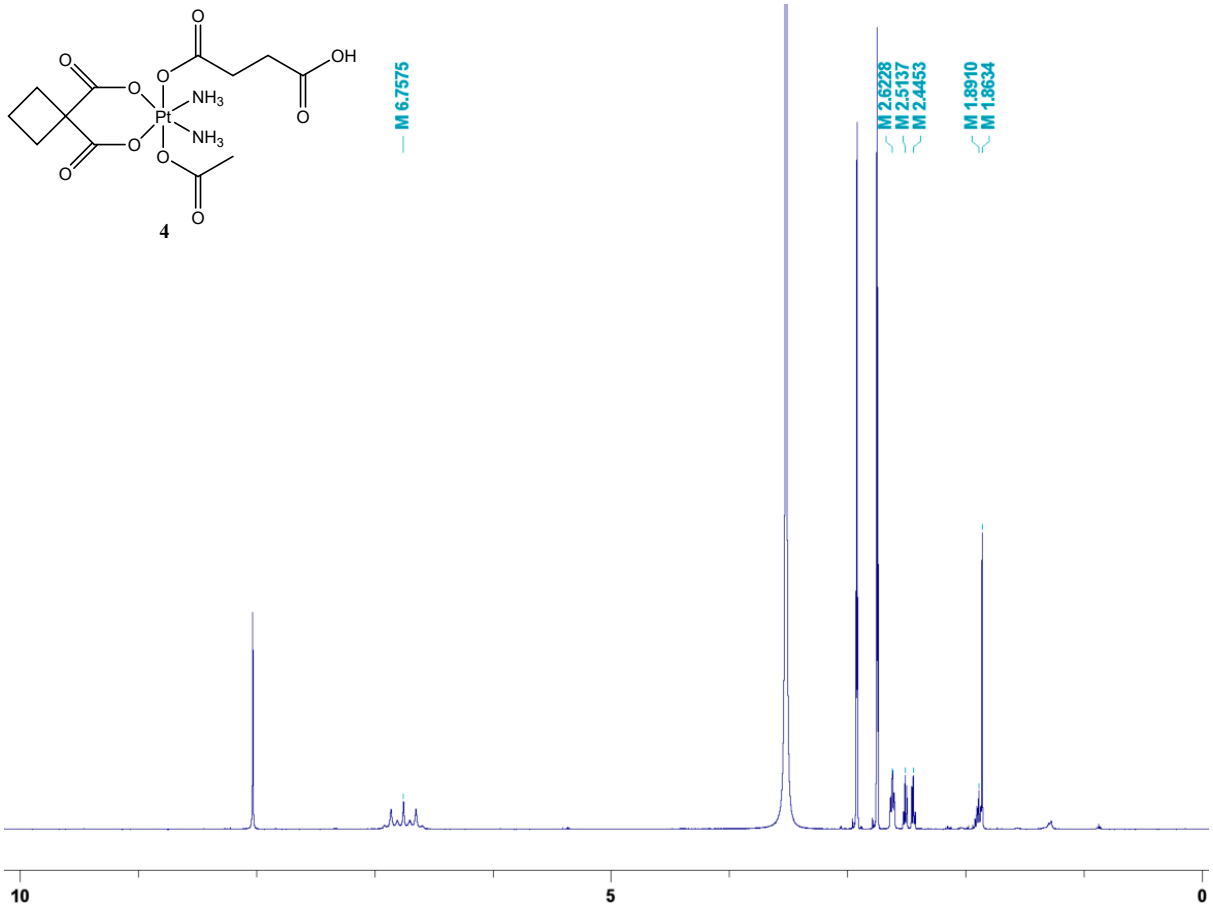

Figure S4. ^{1}H NMR spectrum of complex **4** in d$_7$-DMF.

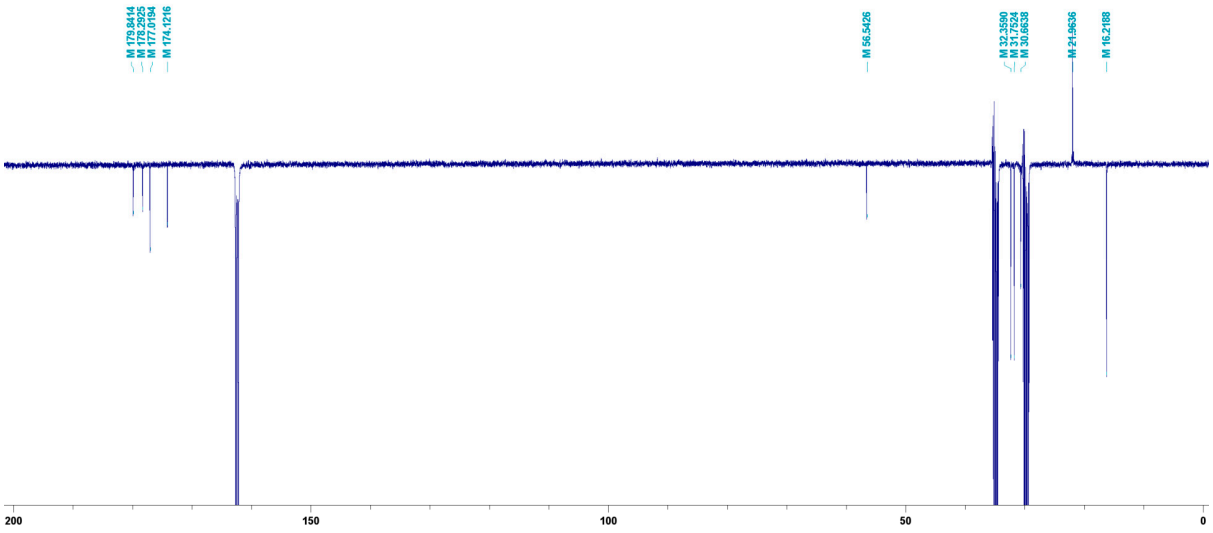

Figure S5. ^{13}C NMR spectrum of complex **4** in d$_7$-DMF.

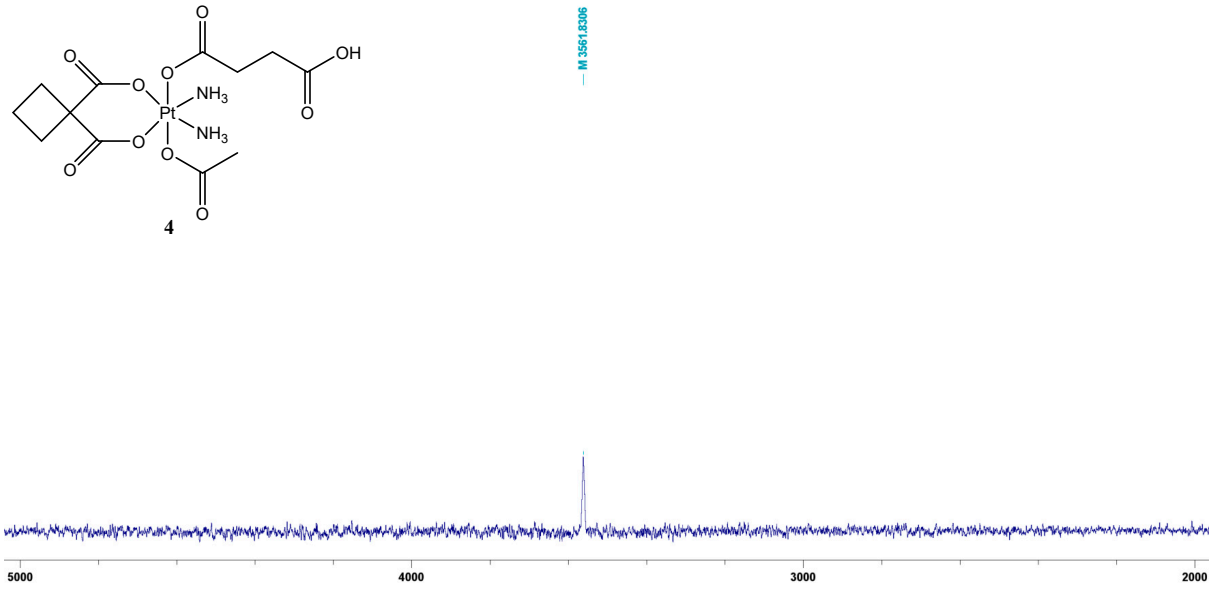

Figure S6. ^{195}Pt NMR spectrum of complex **4** in d$_7$-DMF.

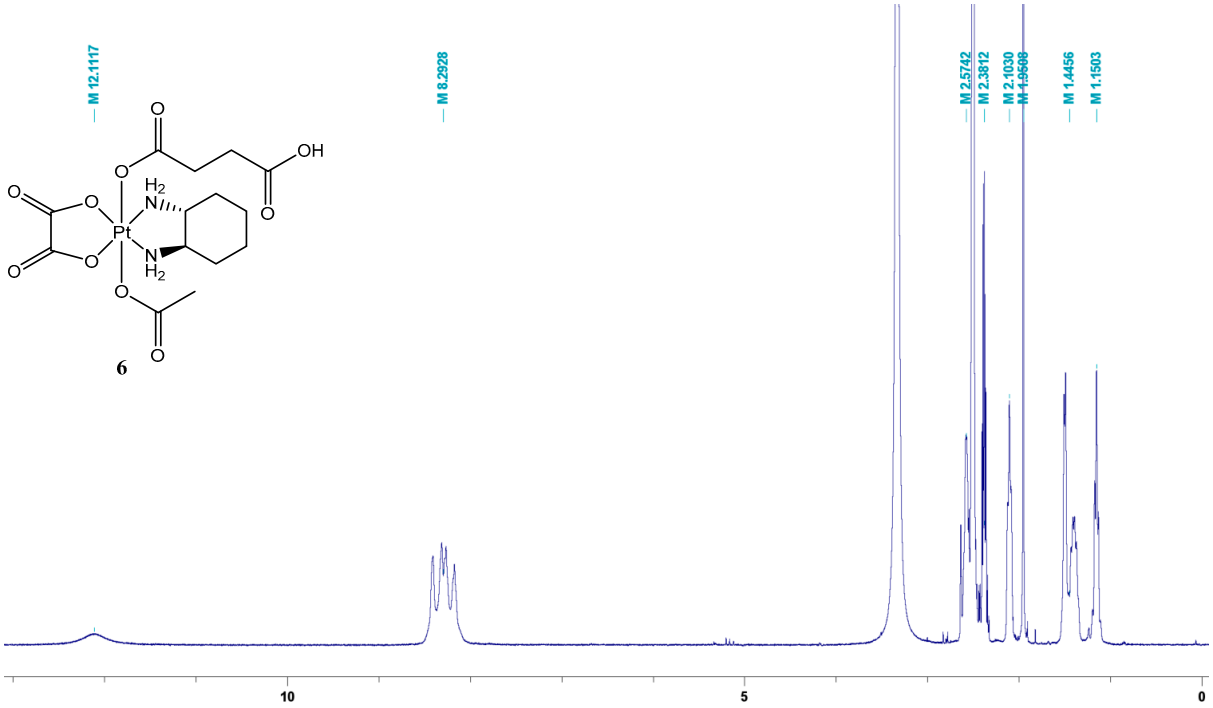

Figure S7. ^{1}H NMR spectrum of complex **6** in d_6-DMSO.

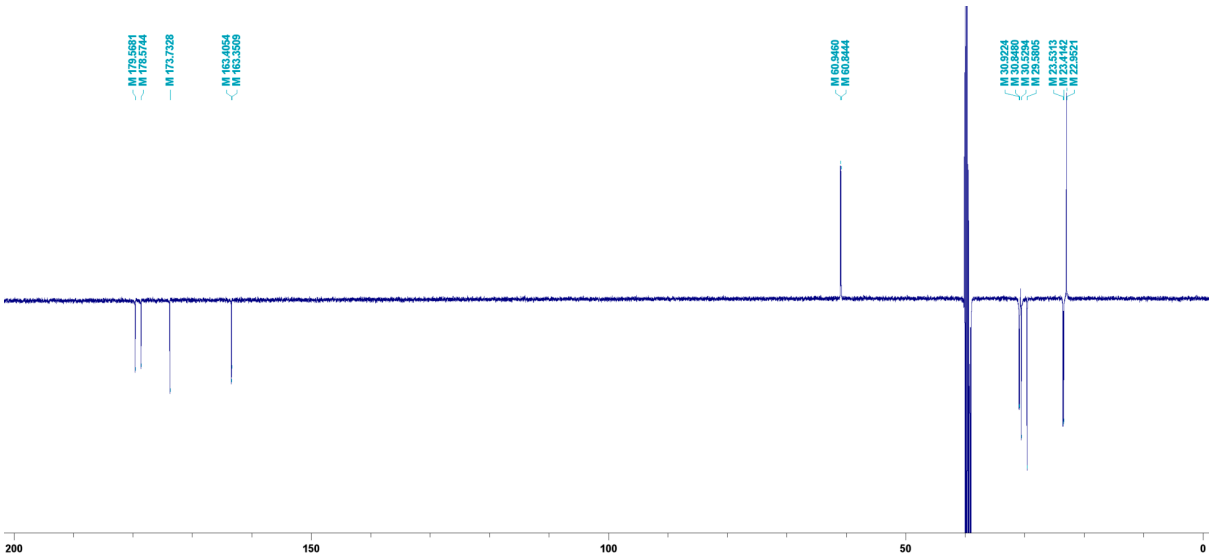

Figure S8. ^{13}C NMR spectrum of complex **6** in d_6-DMSO.

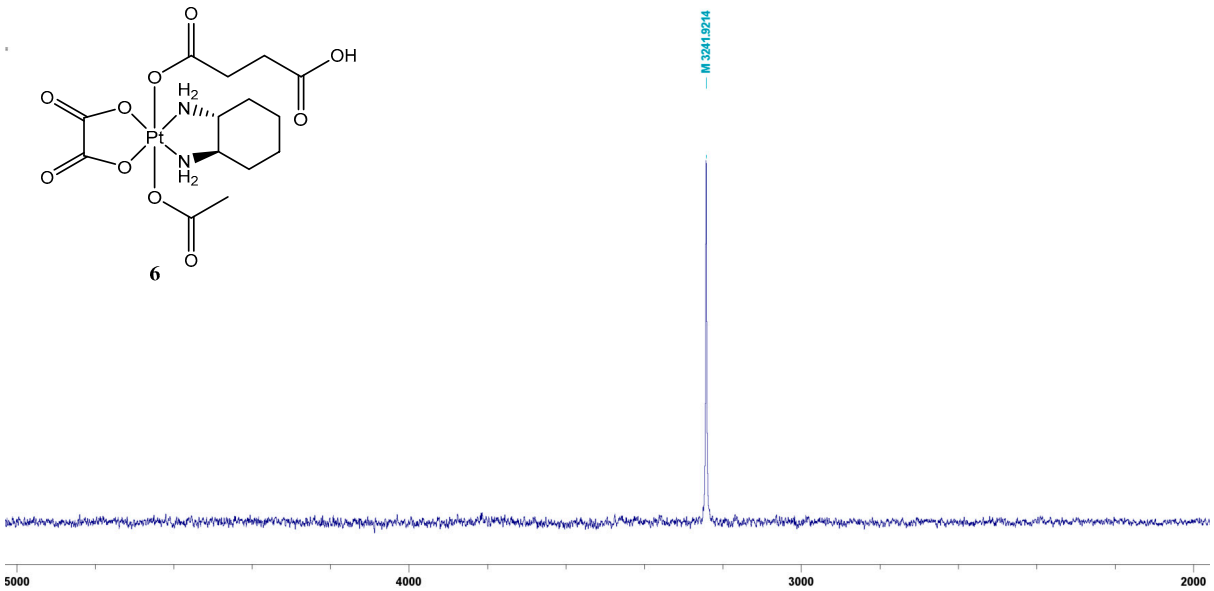

Figure S9. ^{195}Pt NMR spectrum of complex **6** in d_6-DMSO.

2. NMR spectra of dGC polymers

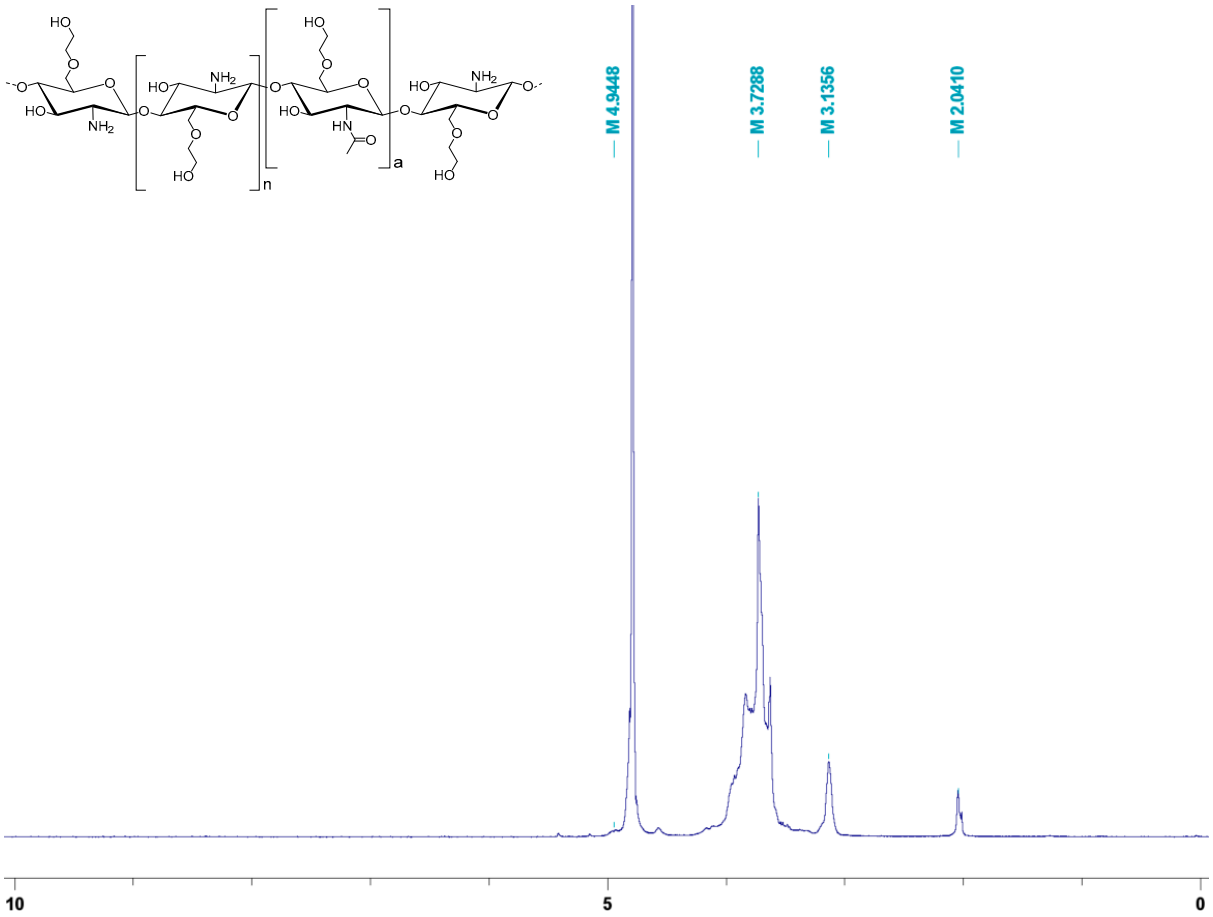

Figure S10. ^{1}H NMR spectrum of dGC polymer **P2** in D_2O.

3. NMR spectra of conjugates

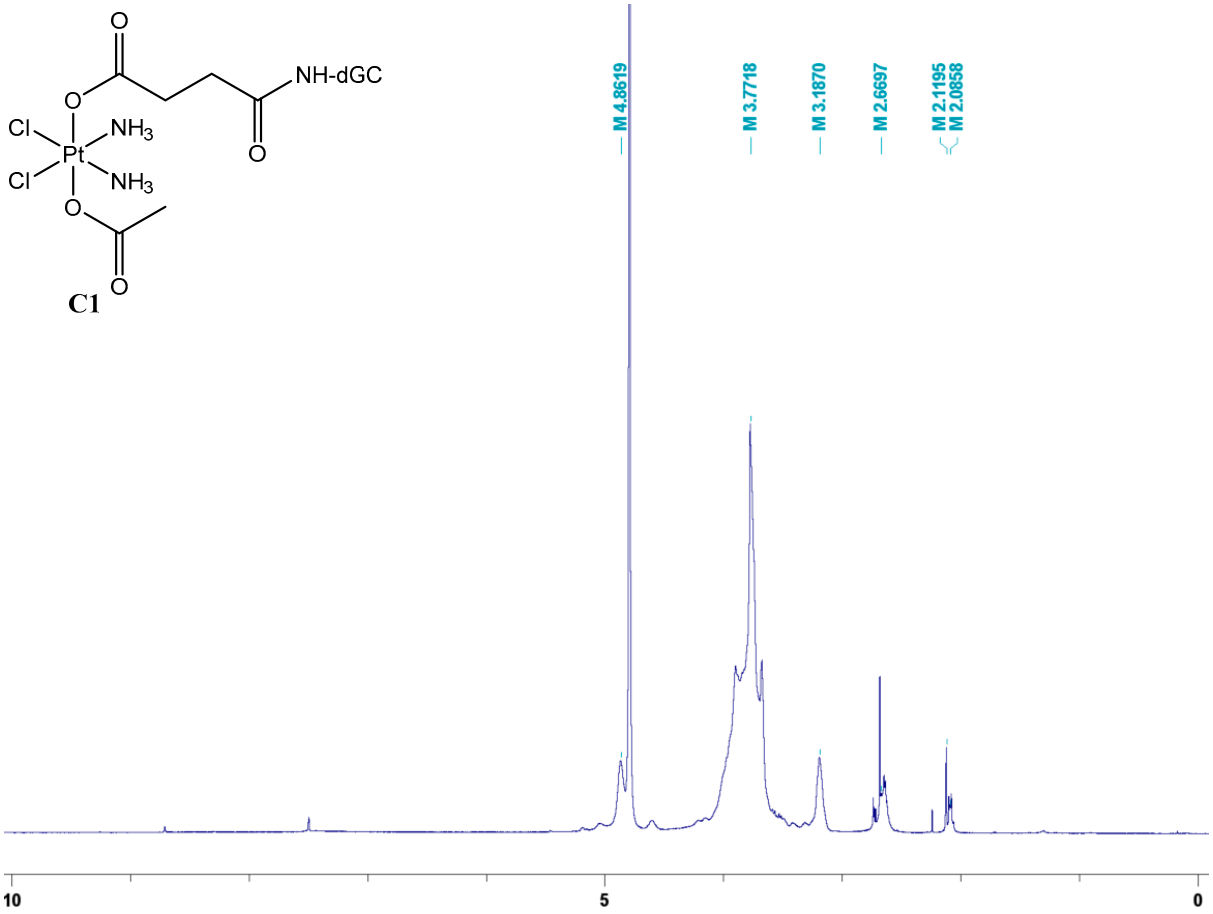

Figure S11. ^{1}H NMR spectrum of conjugate **C1** in D_2O.

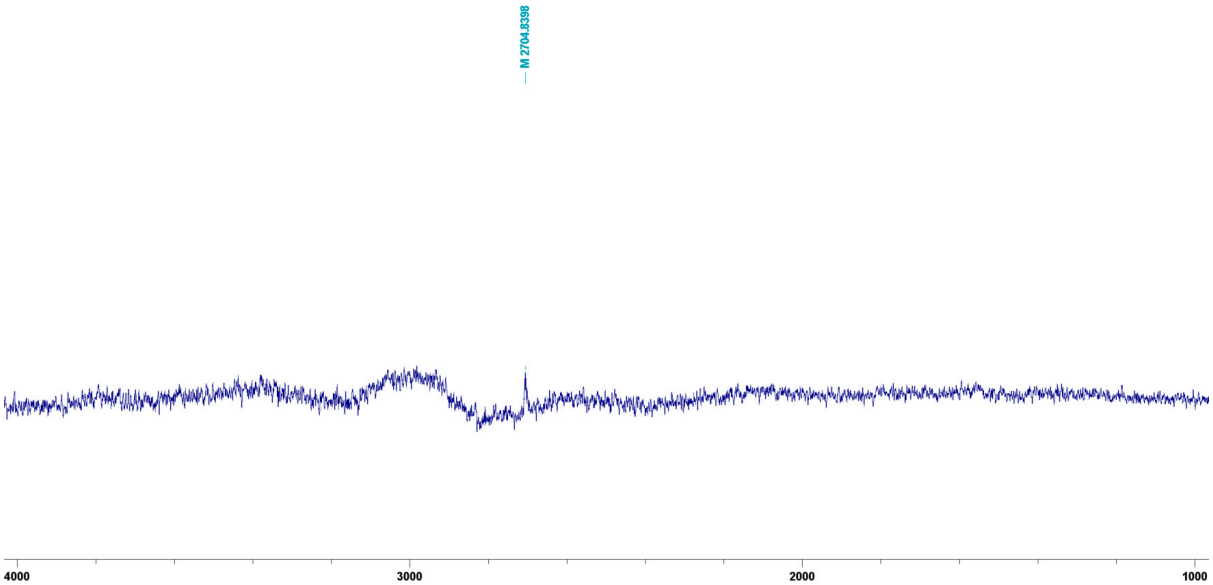

Figure S12. ^{195}Pt NMR spectrum of conjugate **C1** in D_2O.

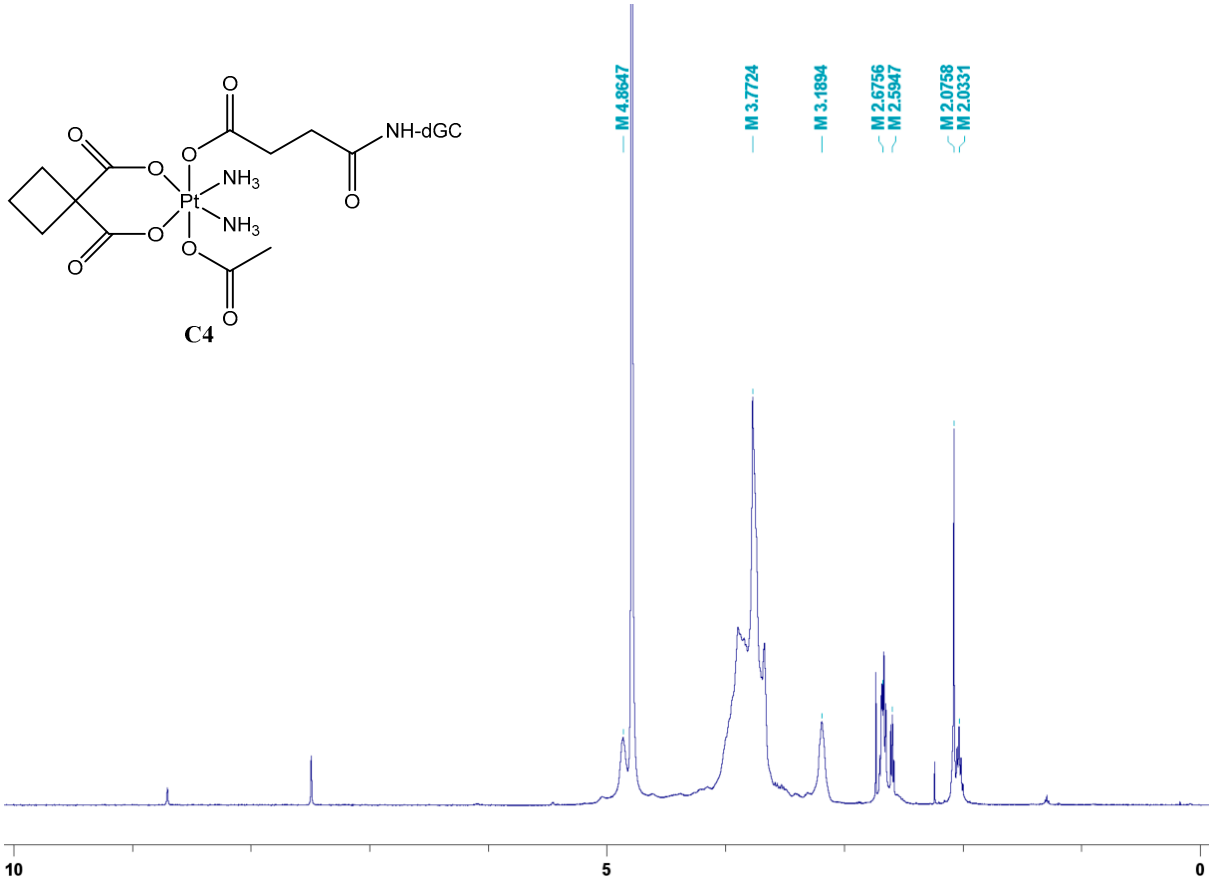

Figure S13. ^{1}H NMR spectrum of conjugate **C4** in D_2O.

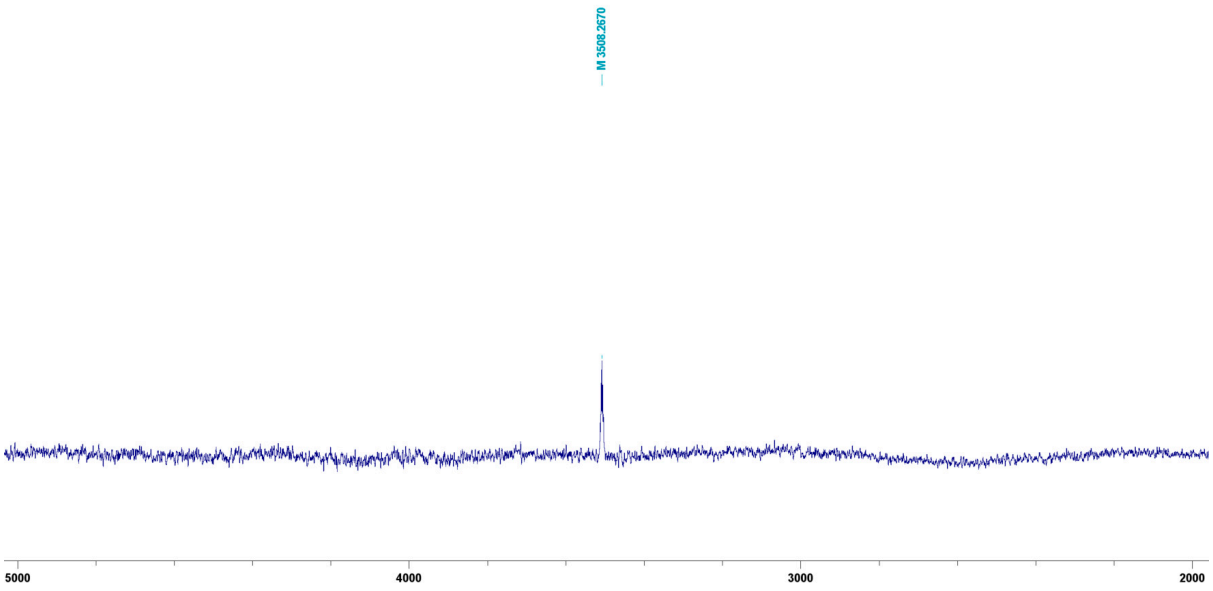

Figure S14. ^{195}Pt NMR spectrum of conjugate **C4** in D_2O.

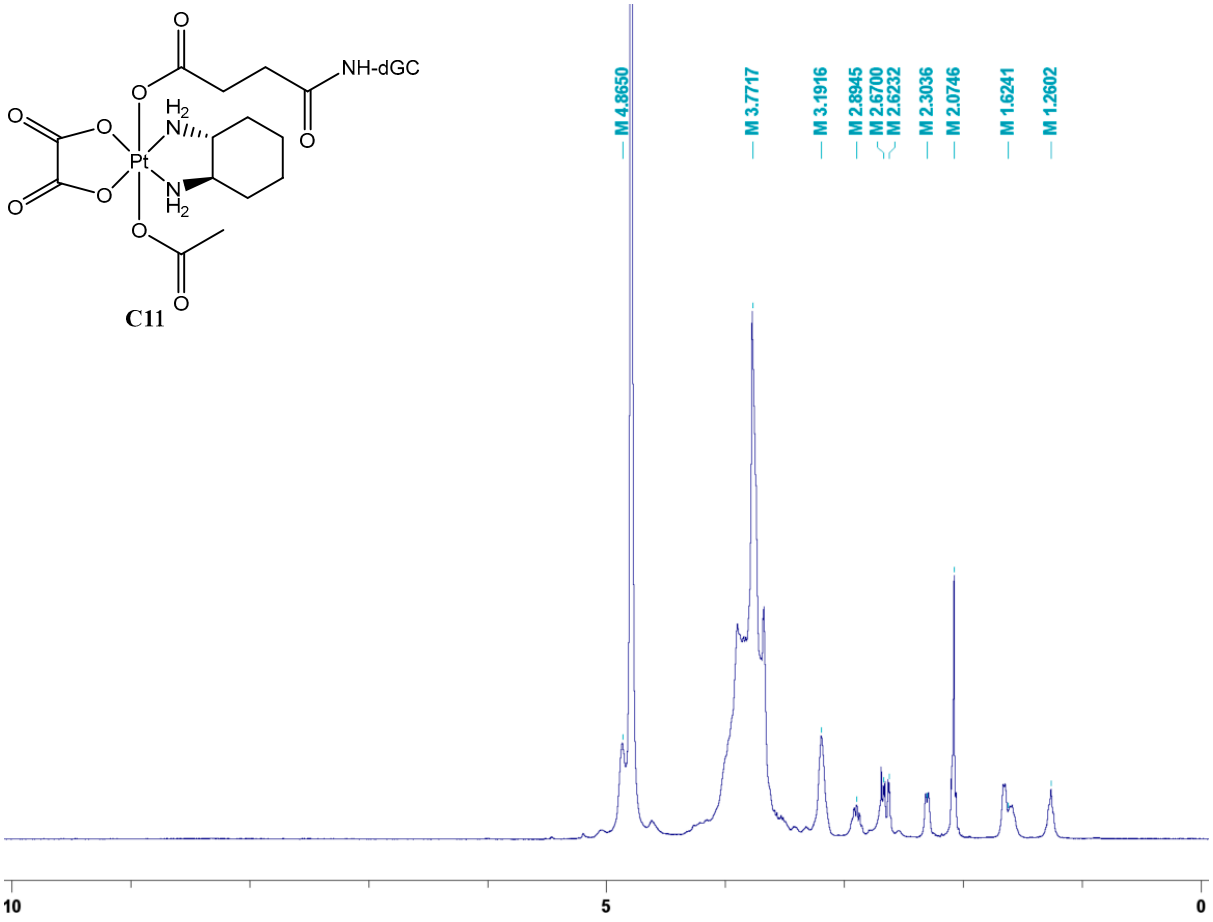

Figure S15. ^{1}H NMR spectrum of conjugate **C11** in D_2O.

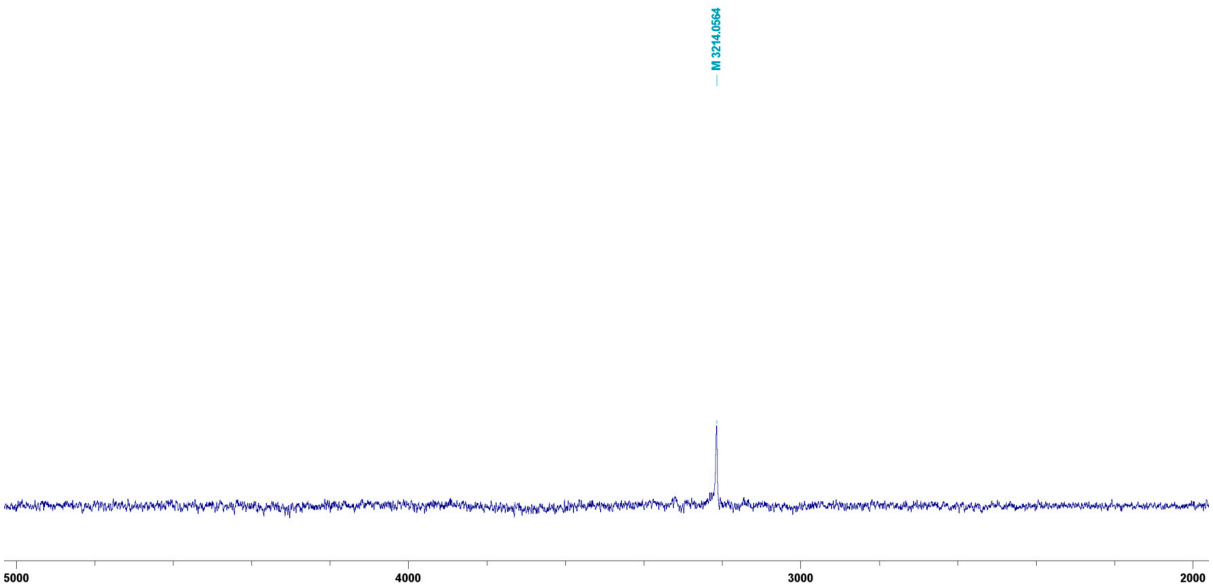

Figure S16. ^{195}Pt NMR spectrum of conjugate **C11** in D_2O.

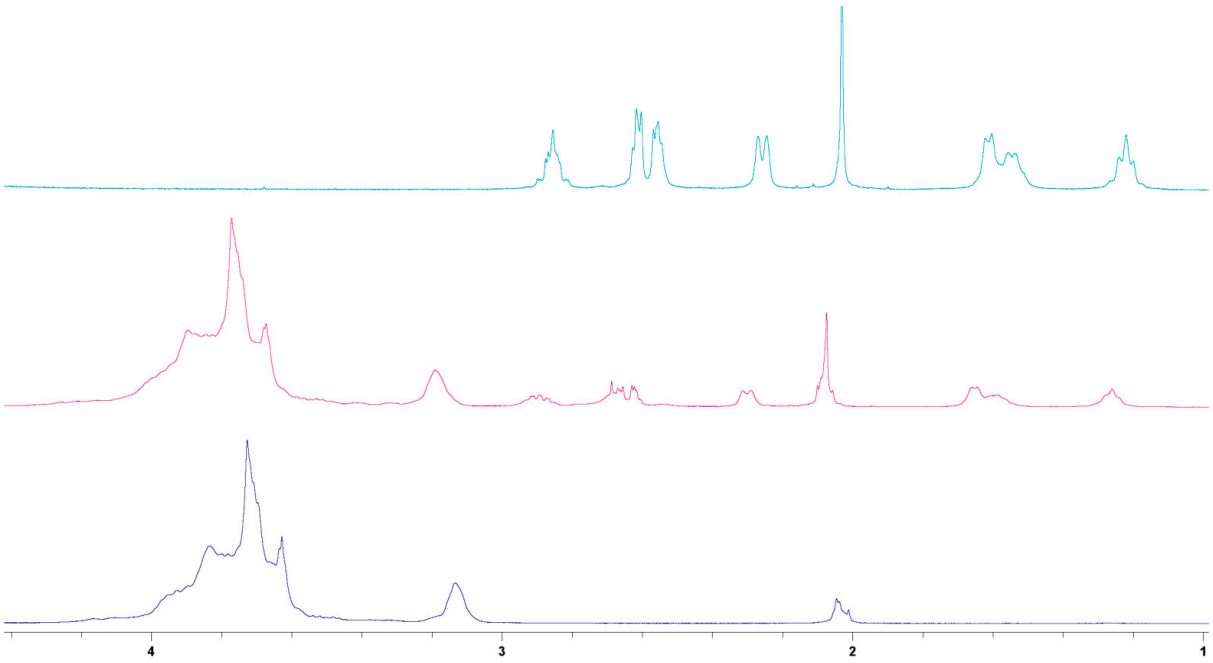

Figure S17. ^{1}H NMR spectra measured in D_2O of platinum(IV) complex **6** (above), conjugate **C11** (middle) and dGC polymer **P2** (below).

4. Concentration-effect curves

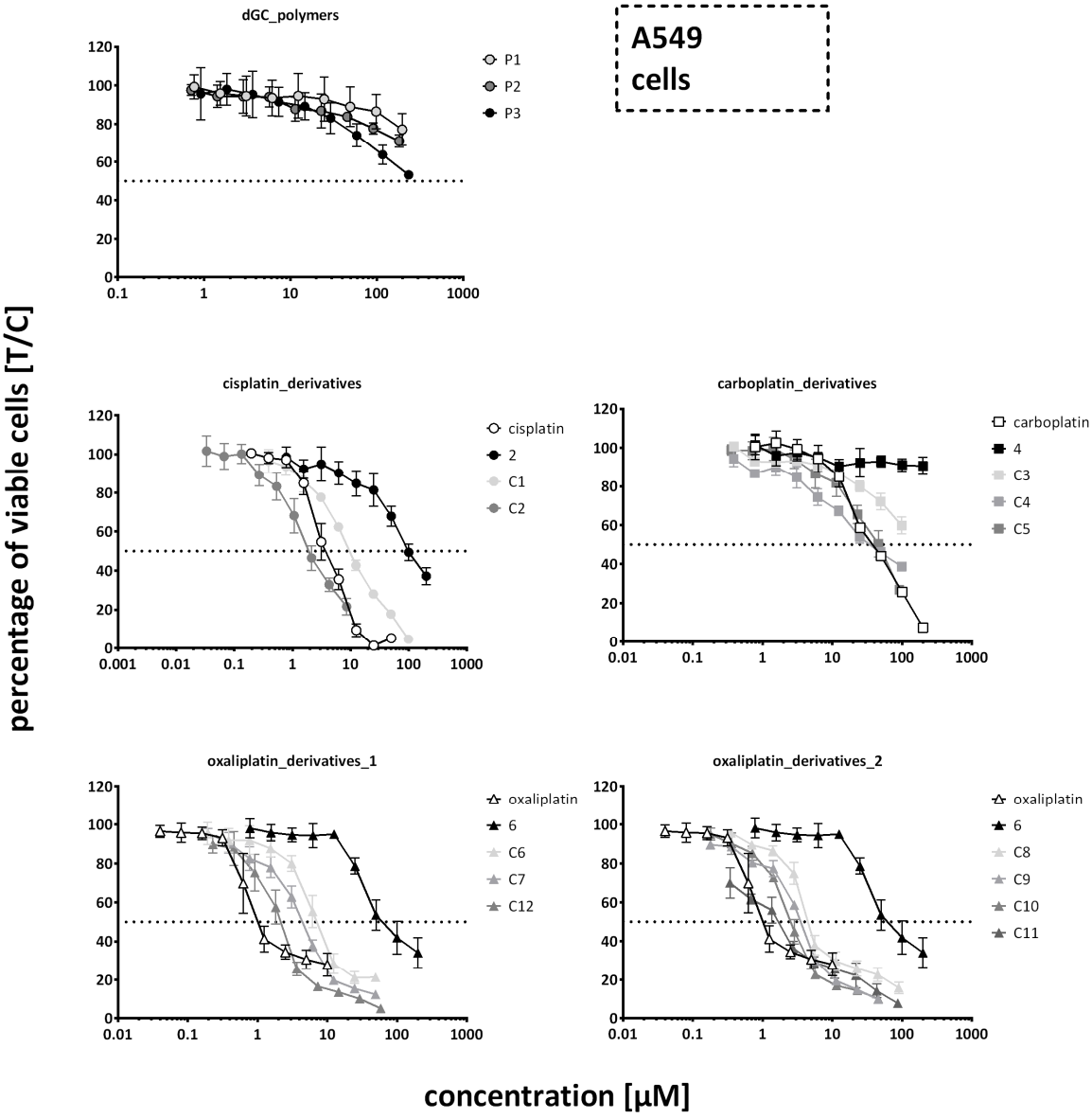

Figure S18. Concentration-effect curves in human cancer cell line A549 in MTT assays.

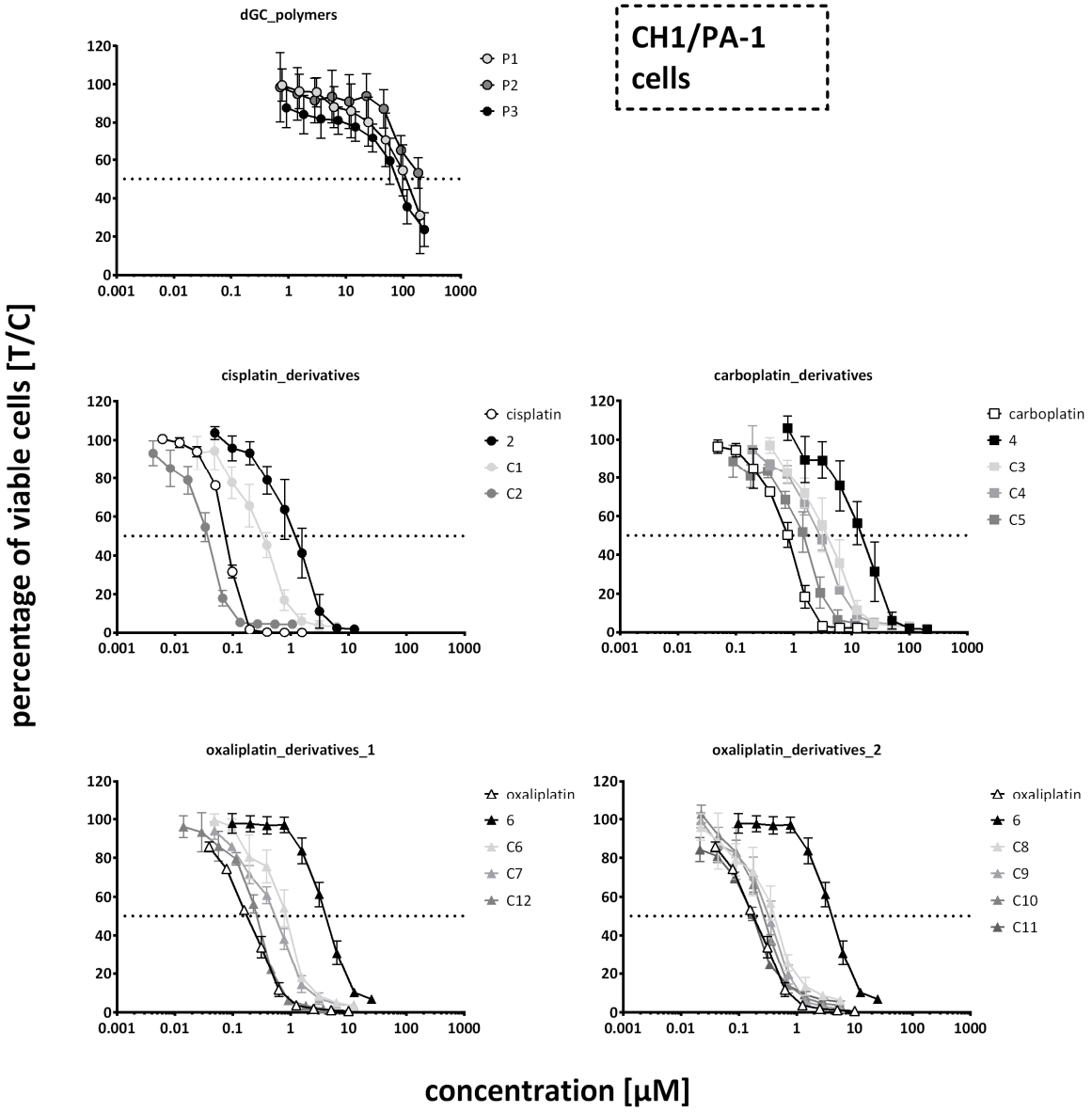

Figure S19. Concentration-effect curves in human cancer cell line CH1/PA-1 in MTT assays.

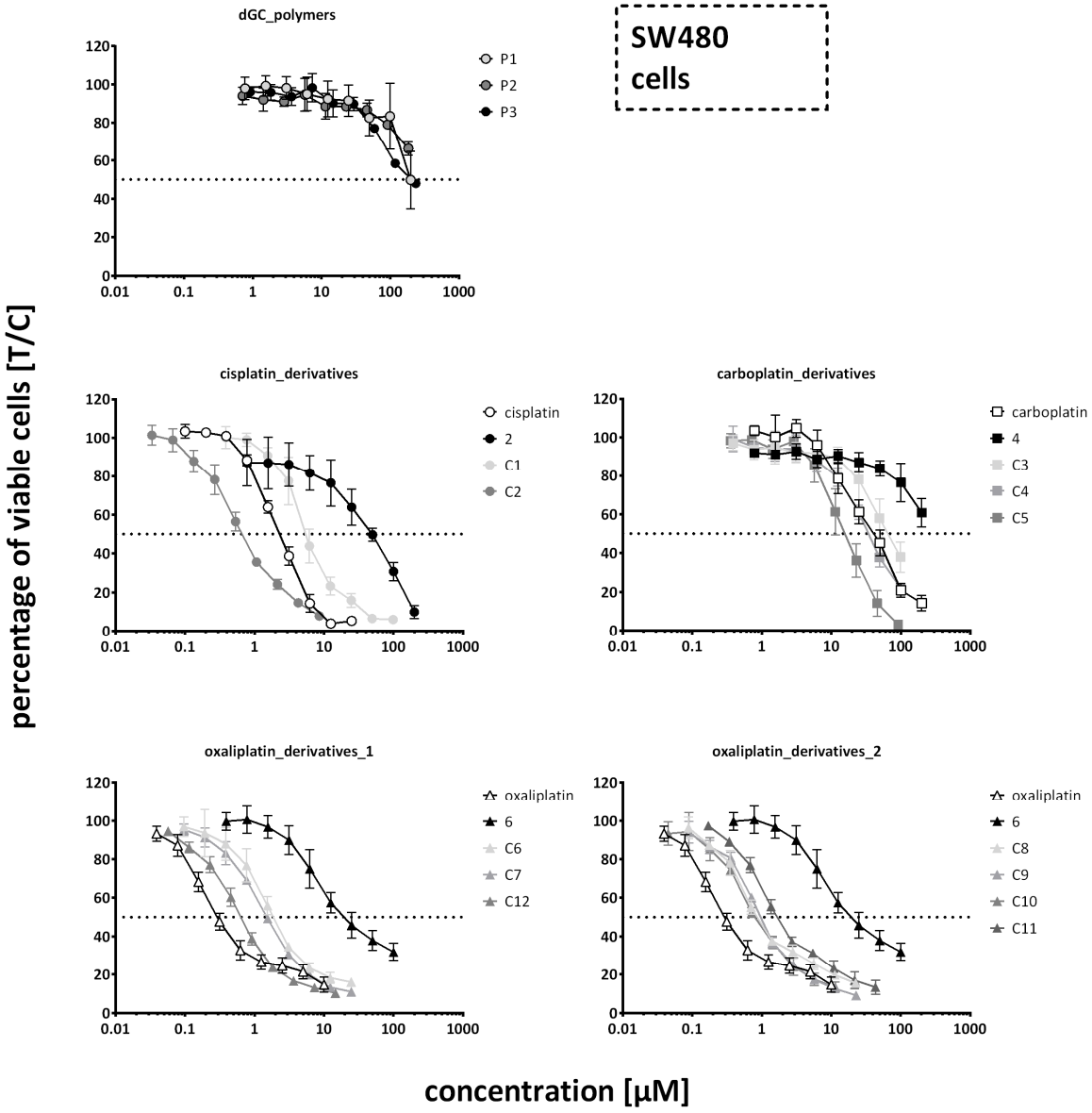

Figure S20. Concentration-effect curves in human cancer cell line SW480 in MTT assays.

5. Solubility data

Table S1. Overview of the water solubility of conjugates **C1**-**C12**, **S1**-**S5**, **V1**-**V3** measured by visual judgement in Milli-Q water at room temperature.

Sample	Pt(IV)	dGC	Water solubility [mg/mL]
C1	**2**	**P1**	>36
C2	**2**	**P2**	~1
C3	**4**	**P1**	>39
C4	**4**	**P1**	~14
C5	**4**	**P2**	~7
C6	**6**	**P1**	>48
C7	**6**	**P1**	>38
C8	**6**	**P2**	>19
C9	**6**	**P2**	>22
C10	**6**	**P2**	>15
C11	**6**	**P2**	~4
C12	**6**	**P3**	~2
S1	**2**	**P3**	<0.5
S2	**2**	**P3**	<0.5
S3	**4**	**P3**	<0.5
S4	**4**	**P3**	<0.5
S5	**6**	**P3**	<0.5
V1	**6**	**P1**	>55
V2	**6**	**P2**	>21
V3	**6**	**P3**	~9