

Supplementary materials

## **Ru(III)-TMSO complexes containing azole-based ligands: synthesis and biological evaluation as antitumor agents**

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1. Figure S1-S5. <sup>1</sup>H-NMR spectrum of *mer*-RuCl<sub>3</sub>(TMSO)<sub>3</sub> in D<sub>2</sub>O at various temperature.
2. Figure S6. Uv-visible spectra of complex **4**, glutathione, and the 1:1 mixture of complex **4** and glutathione.
3. Figure S7-S10. Uv-visible study of log P (partition coefficient).

Figure S1

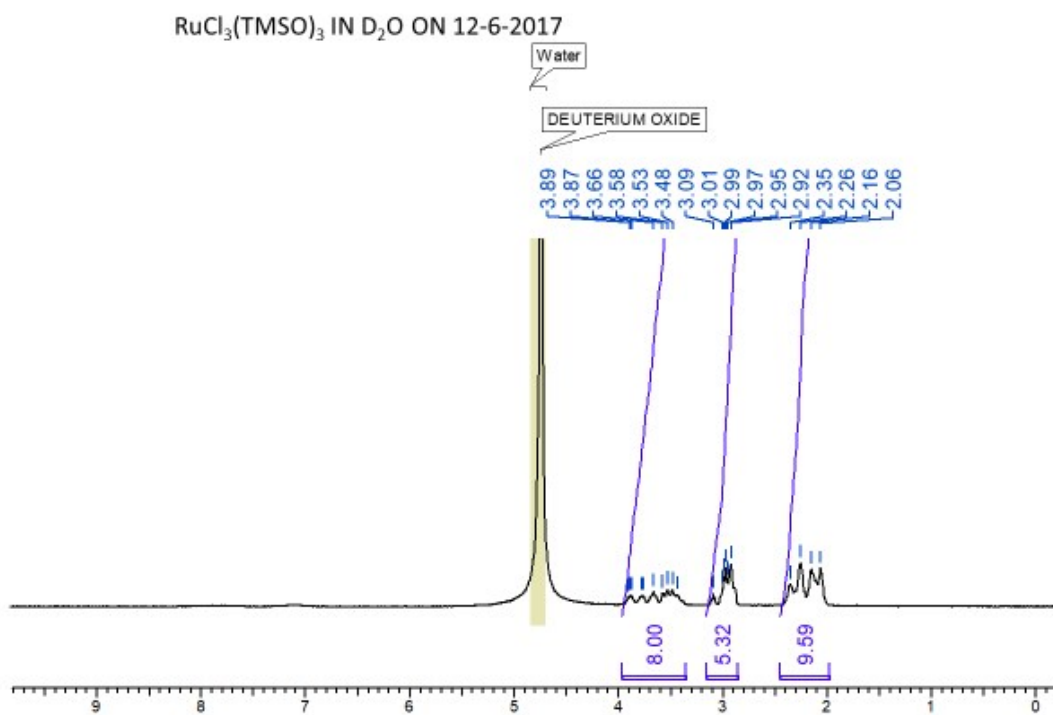


Figure S2

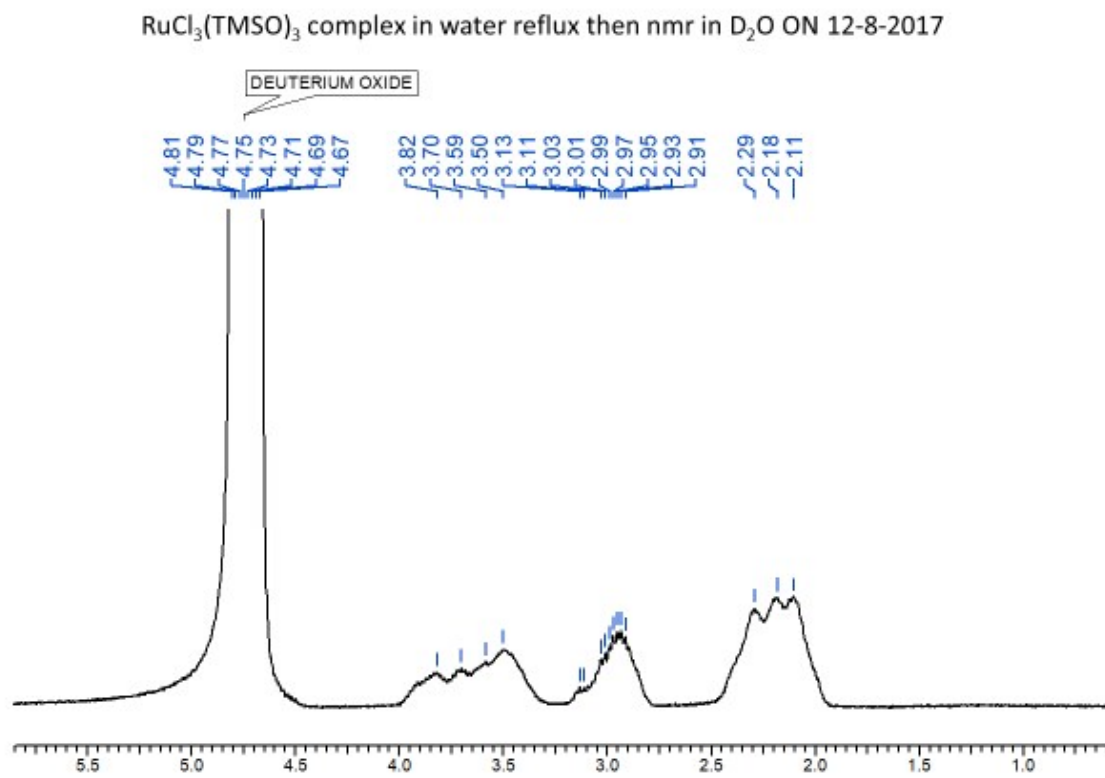


Figure S3

$\text{RuCl}_3(\text{TMSO})_3$  complex in  $\text{D}_2\text{O}$  (NMR sample) heating at  $75^\circ\text{C}$  then nmr in  $\text{D}_2\text{O}$  ON  
12-7-2017

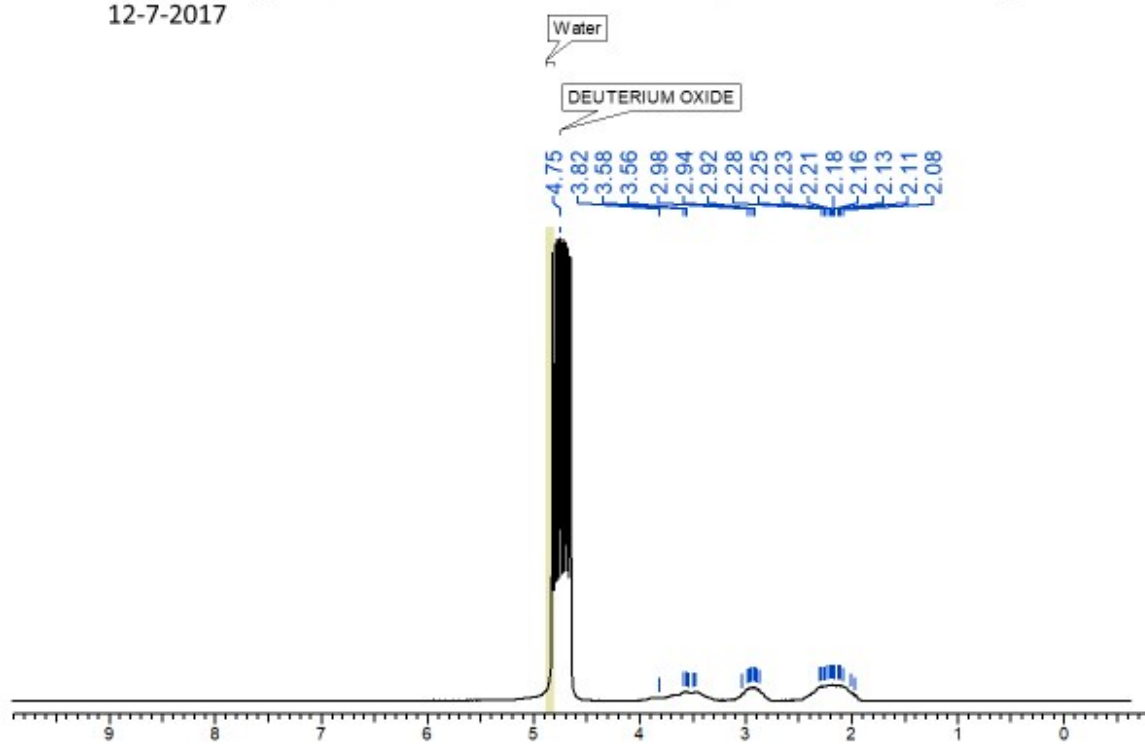


Figure S4

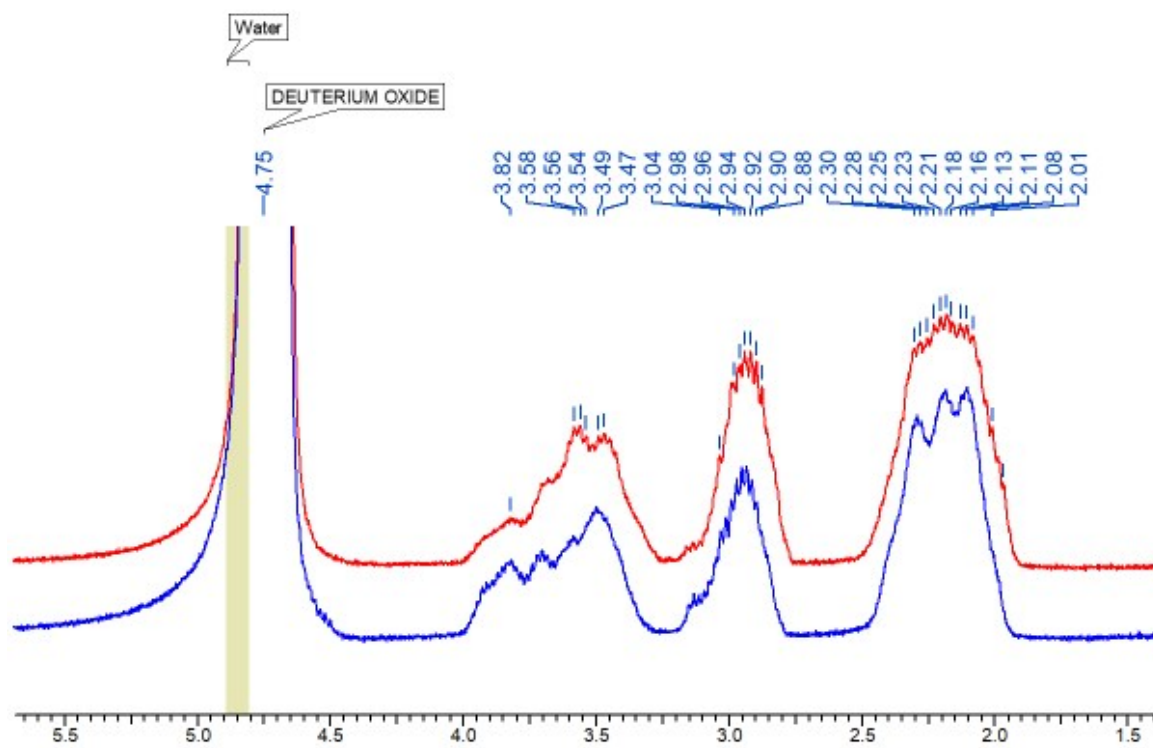


Figure S5

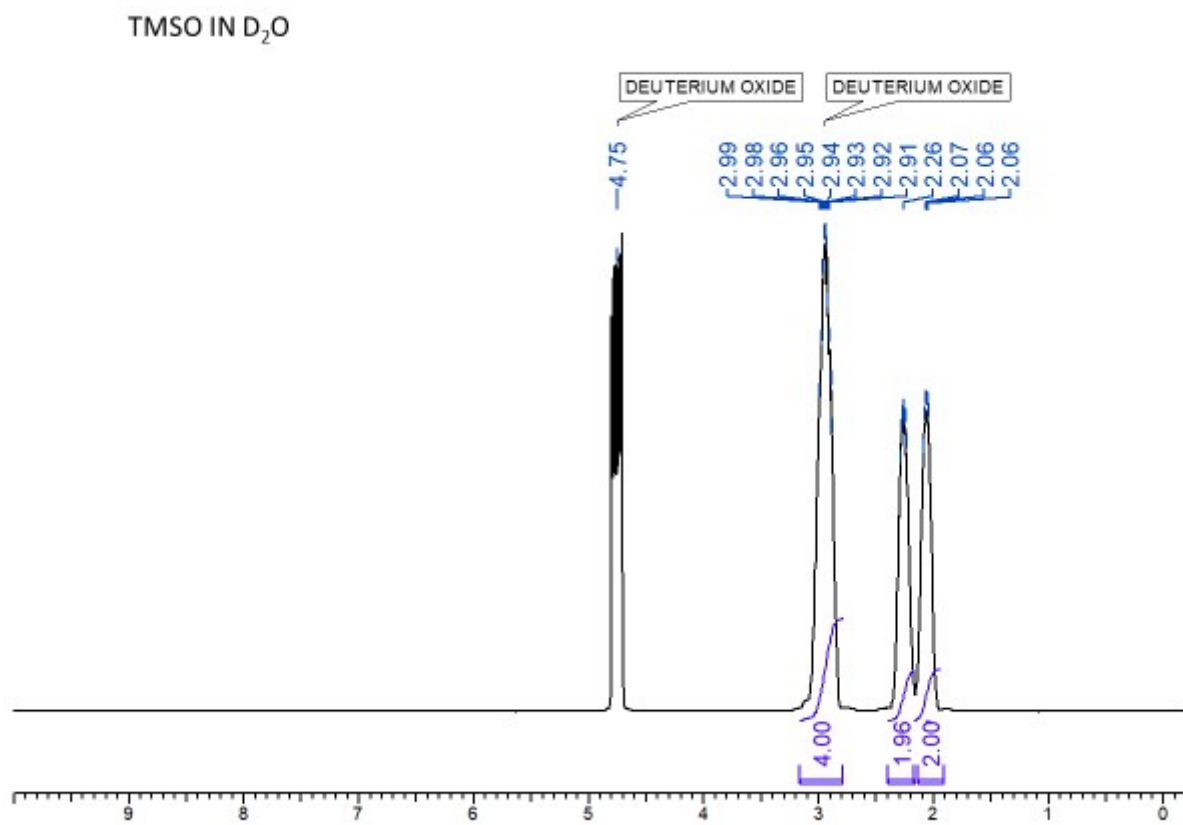


Figure S6

Figure S6. Uv-visible spectrum of glutathione, Compound 4, and mixture of Compound 4 and glutathione in H<sub>2</sub>O(HPLC grade)

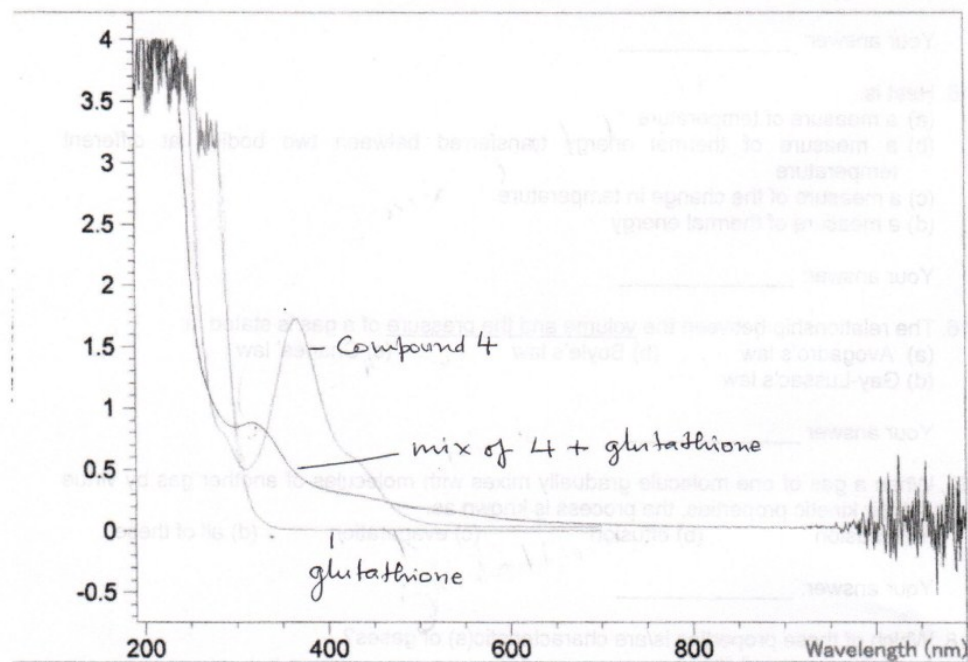
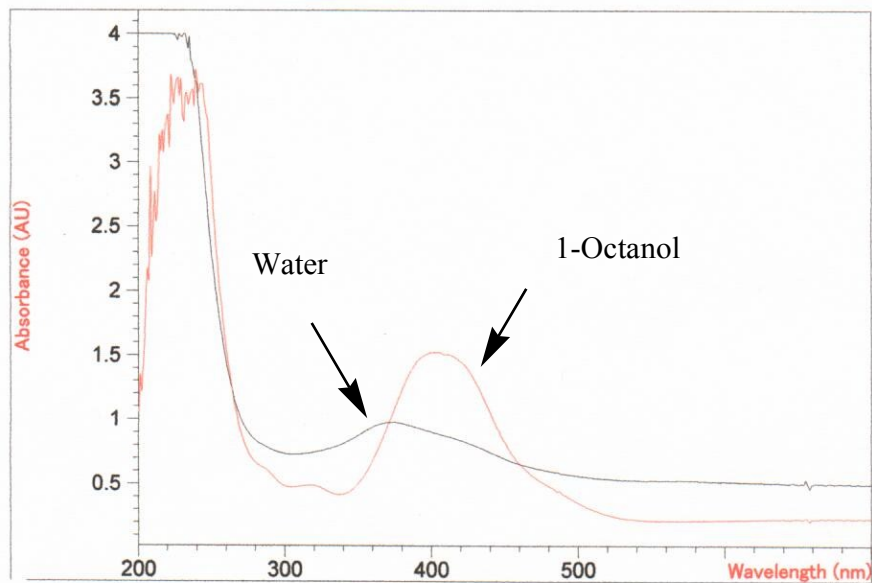


Figure 7

*UV-vis of mer-RuCl<sub>3</sub>(TMSO) (pZH), 1*

Overlaid Sample Spectra



Sample/Result Table

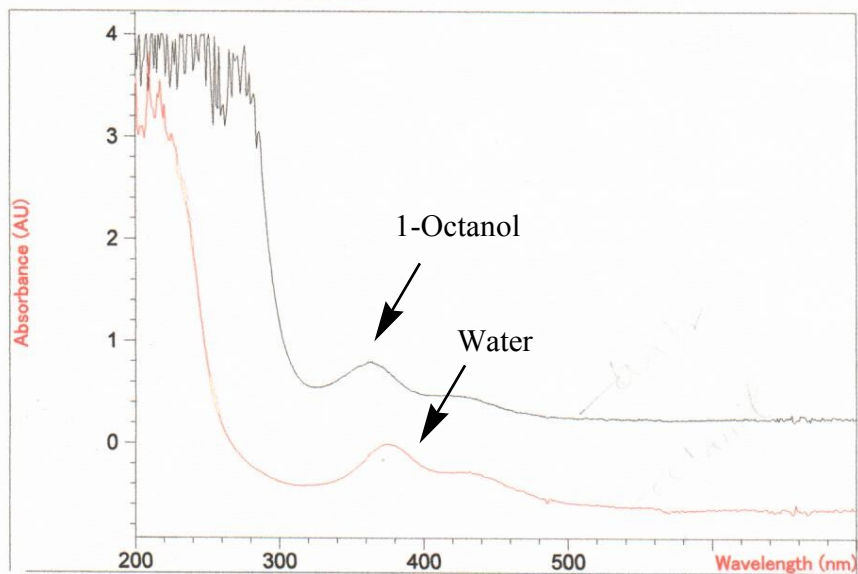
#	Name	Abs<480nm>	#	Name	Abs<480nm>
1		0.59973	2		0.48188



Figure 8

*UV-vis of mer-RuCl<sub>3</sub>(TMSO)<sub>2</sub>(pzH), 2*

Overlaid Sample Spectra



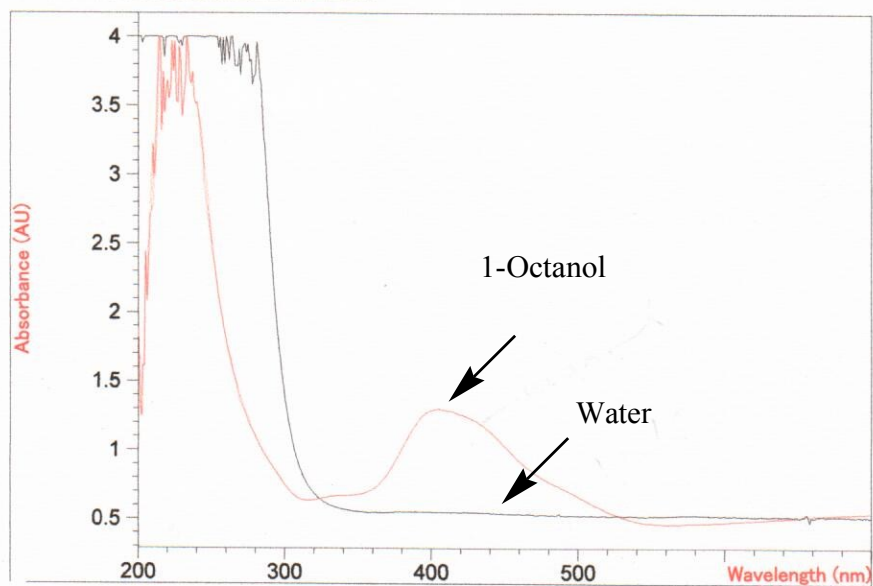
Sample/Result Table

#	Name	Abs<375nm>	#	Name	Abs<375nm>
1		0.69650	2		-9.3398E-3

Figure 9

UV-vis *mer*-RuCl<sub>3</sub>(TMSO)(dmpzH)<sub>2</sub>, **3**

Overlaid Sample Spectra



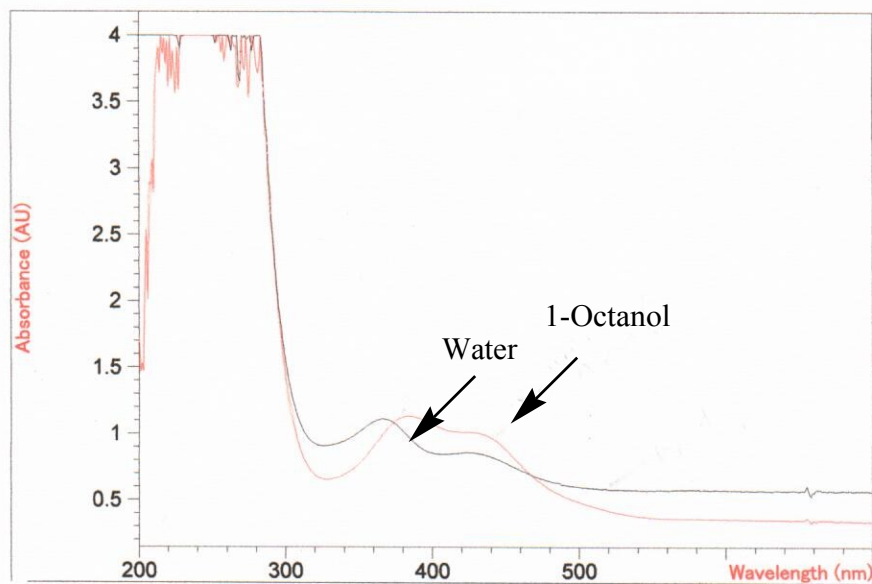
Sample/Result Table

#	Name	Abs<405nm>	#	Name	Abs<405nm>
1		0.54993	2		1.30170

Figure 10

UV-vis *mer*-RuCl<sub>3</sub>(TMSO)<sub>2</sub>(dmpzH), **4**

Overlaid Sample Spectra



Sample/Result Table

#	Name	Abs<367nm>	Abs<385nm>
1		1.11200	0.96107
2		1.01200	1.13460