

Supplementary Material

Microwave-assisted synthesis of ruthenium(II) complexes with TMSA (trimethylsilylacetylene) as inhibitors against the migration of breast cancer cells

Zhao Zhang,^{A#} Ya-Jun Wang,^{B#} Qiong Wu,^A Xiao-Hui Wu,^A Fu-Qiang Sun,^A Bao-
Guo Wang,^C Wen-Jie Mei,^{A,D} Si-Dong Chen^{C,D}

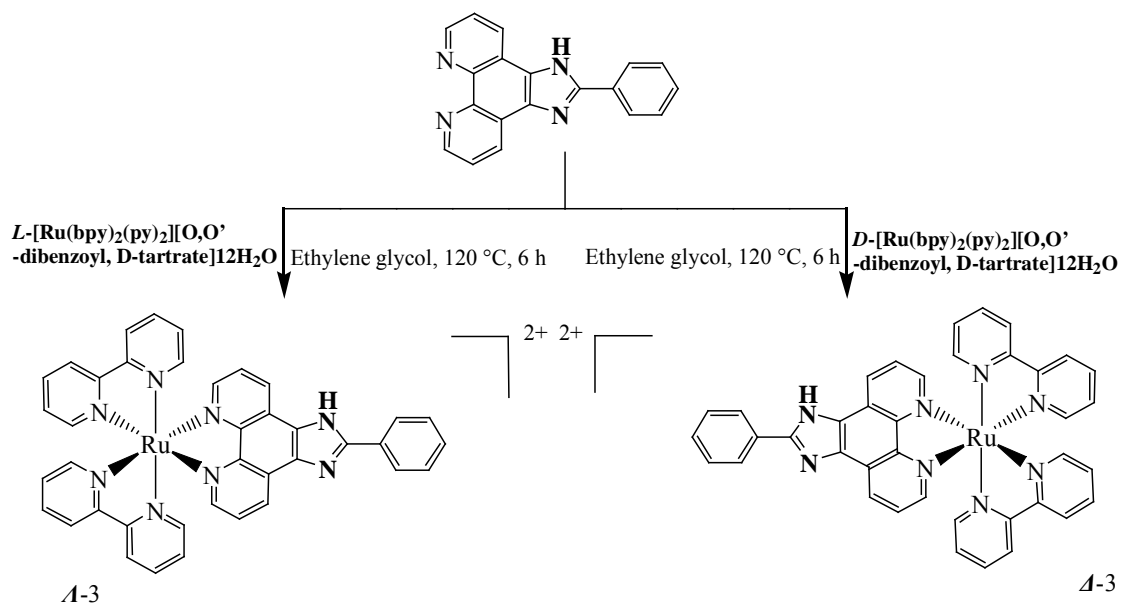
^A College of Pharmacy, Guangdong Pharmaceutical University, Guangzhou, Guangdong, 510006, P. R. China.

^B Affiliated Hospital of Guangdong Medical, Zhanjiang, Guangdong, 524000, P. R. China.

^C Key Laboratory of Molecular Epidemiology, Guangdong Pharmaceutical University, Guangzhou, China

^D Corresponding authors. E-mail: wenjiemei@126.com(W. J. Mei); E-mail: chensidong@tom.com(S. D. Chen).

[#] These authors contributed equally to the work.



Scheme S1 The synthesis route of chiral ruthenium(II) complexes *A-3* and *A-3*.

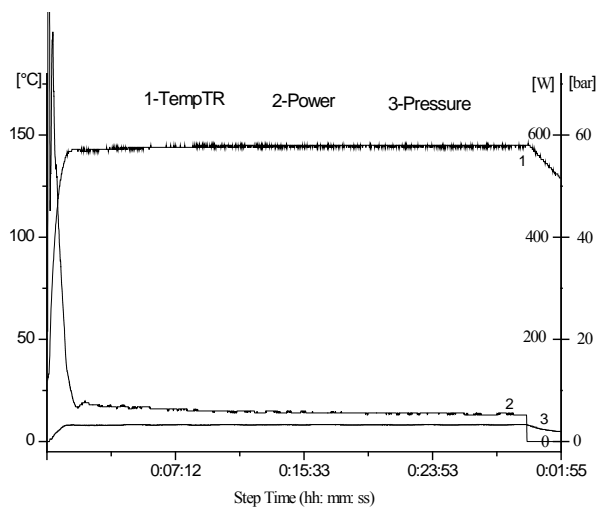


Figure S1 Reaction profile of L0627 in acetonitrile at 140 °C for 30 min. Temperature (1), Power (2), and Pressure (3).

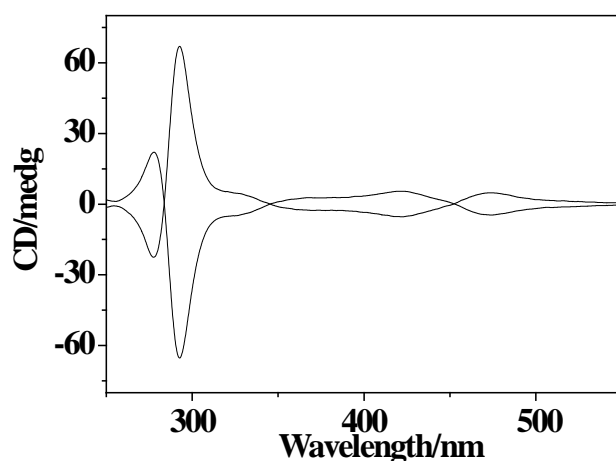


Figure S2 The CD spectra of ruthenium(II) complexes *A-1* and *A-1*.

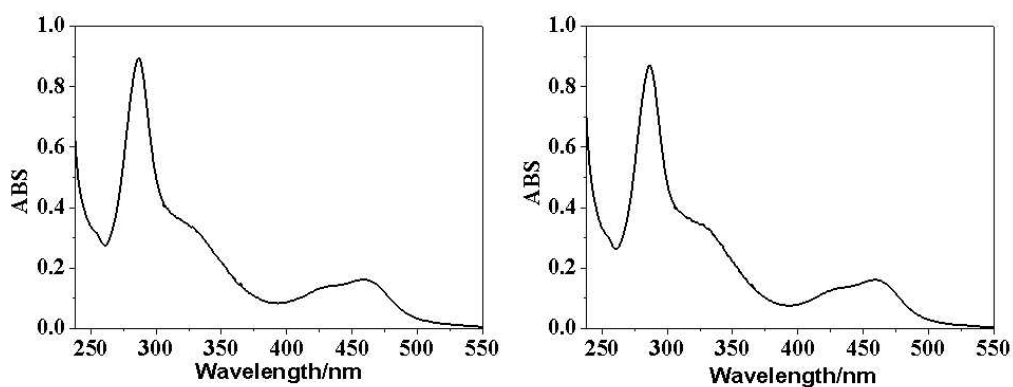


Figure S3 The electronic spectra of ruthenium(II) complexes *A-1* and *A-1*.

Table S1 The inhibitory activity ($IC_{50}/\mu M$) of chiral ruthenium(II) complexes and cisplatin against selected cell lines.

Comp.	Inhibitory Activity / IC_{50}			
	MDA-MB-231	EC-1	HepG2	HaCat
<i>A-1</i>	32.1 \pm 1.2	88.0 \pm 2.6	135.7 \pm 1.0	120.7 \pm 1.0
<i>A-1</i>	36.9 \pm 1.6	113.4 \pm 1.0	113.9 \pm 0.8	171.9 \pm 0.5
<i>A-3</i>	93.1 \pm 0.9	578.2 \pm 0.4	132.1 \pm 0.5	197.2 \pm 2.3
<i>A-3</i>	276.9 \pm 0.9	593.7 \pm 1.0	145.7 \pm 0.5	213.9 \pm 1.8
Cisplatin	36.1 \pm 0.8	/	7.23 \pm 2.4	7.48 \pm 1.3

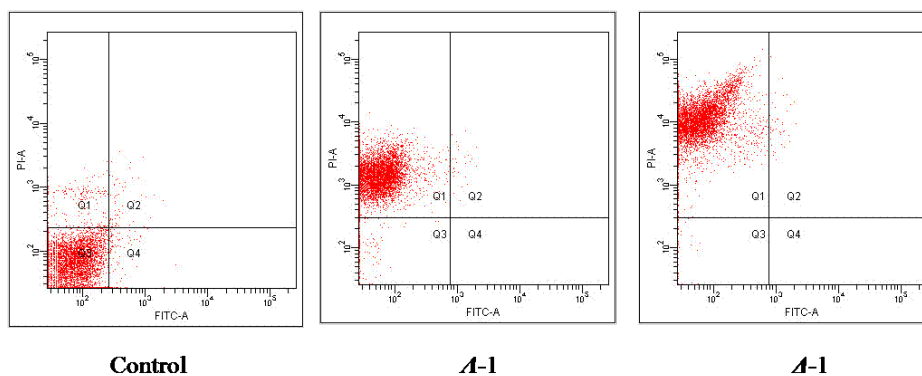


Figure S4. FCM analysis of the apoptosis of MDA-MB-231 cells treated with complexes *A-1* and *A-1* after 24 h. The effect of both complexes (20 μ M) on MDA-MB-231 cells apoptosis was determined by flow cytometry. Untreated (control) cells treated for 24 h were harvested, fixed, stained with Annexin V/PI, and assessed for cell apoptosis distribution by flow cytometric analysis.