Electronic Supporting Information

For

Antiangiogenic ruthenium(II) benzimidazole complexes, structure-based activation of distinct signaling pathways

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Results

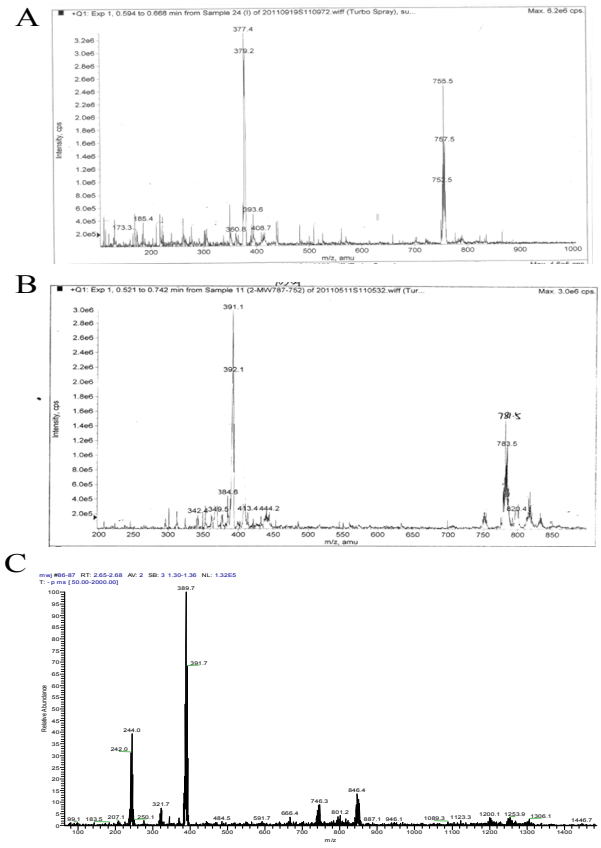

Fig. S1. ESI-MS spectrum of complexes (A) **2**， (B) **3** and (C) **NAMI-A** An methanol solution of the complex was used for the mass spectral measurement.

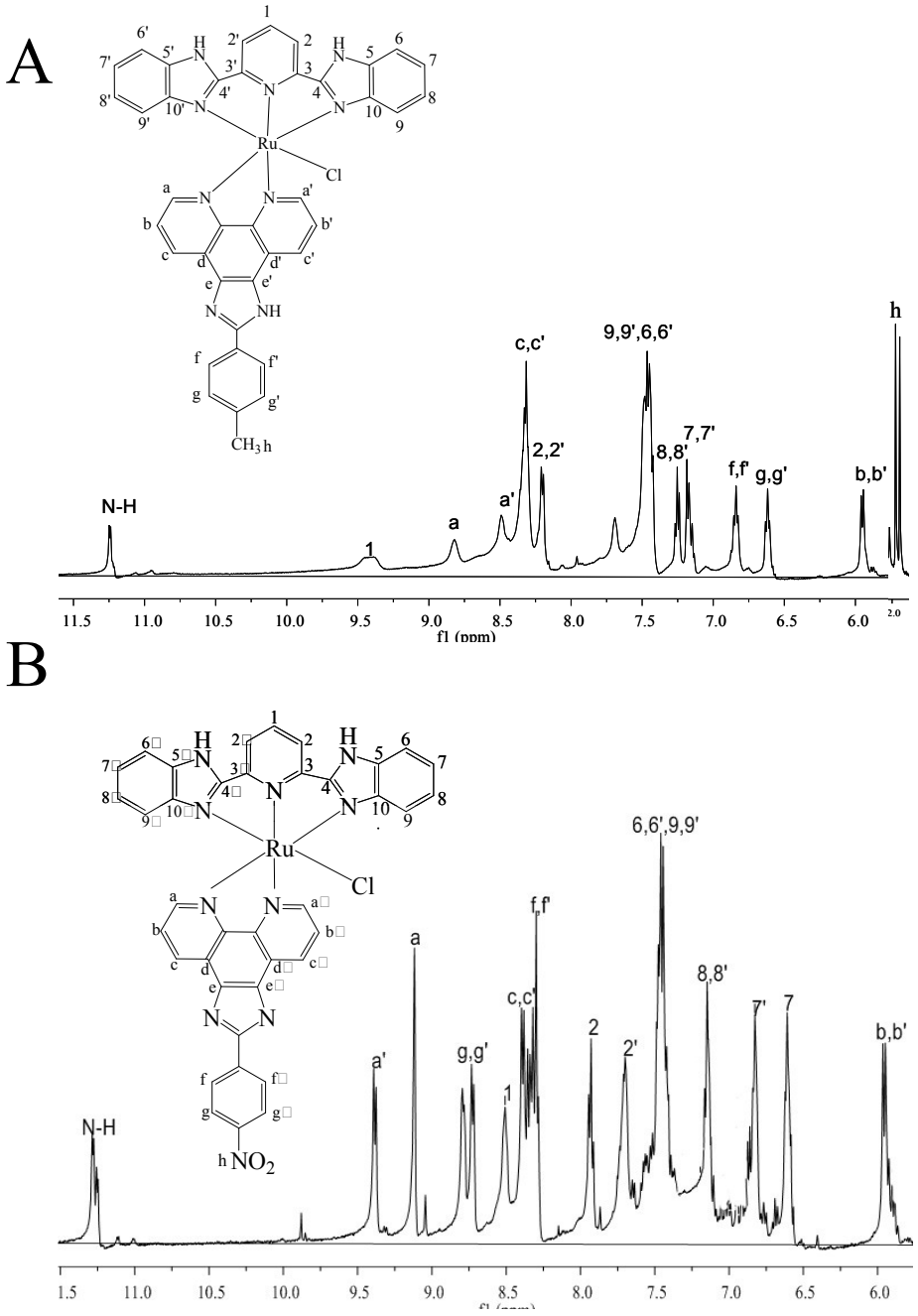

Fig. S2. ^{1}H NMR spectra of complexes (A) **2** and (B) **3.**

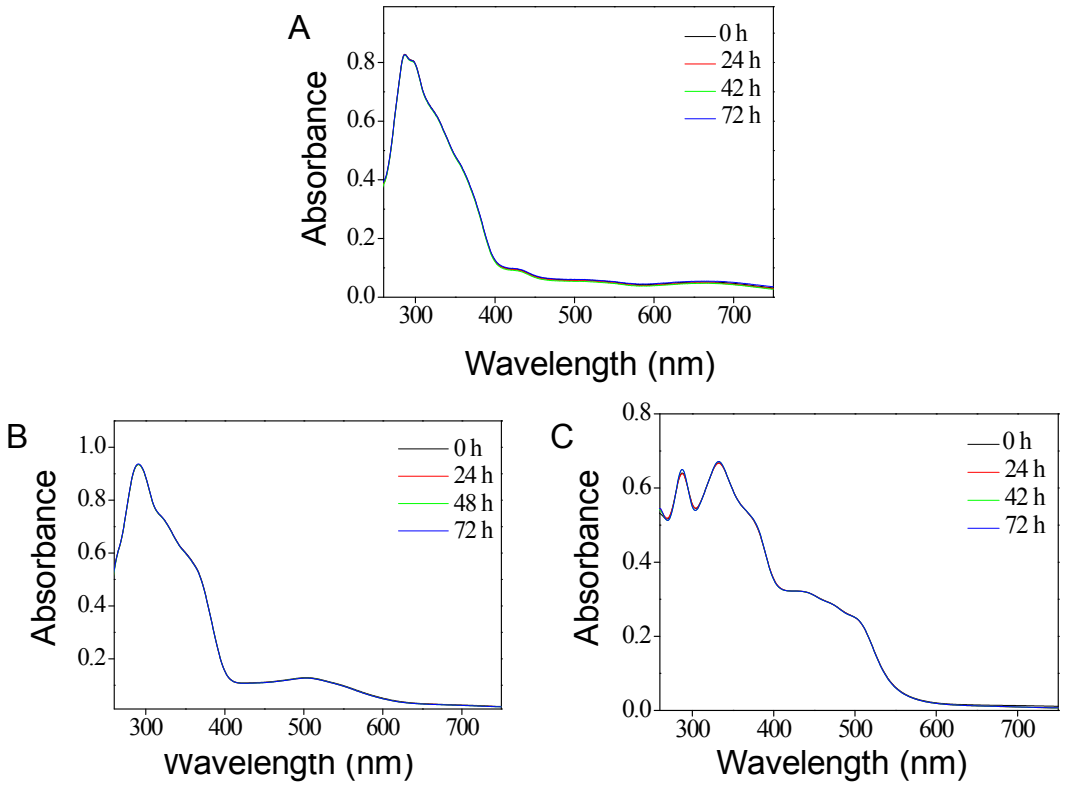

Fig. S3. UV-Vis absorption spectra of Ru complexes (30 μM) **1** (A), **2** (B) and **3** (C) in PBS buffer during incubation at 37 ℃.

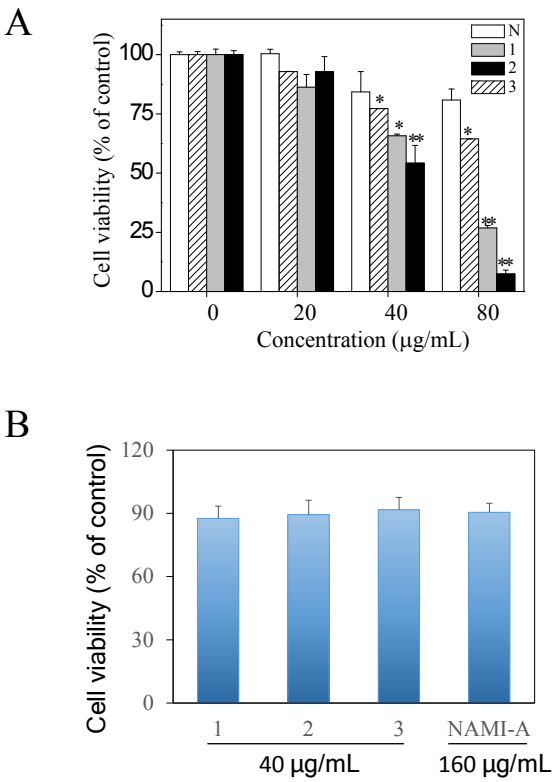

Fig. S4. Cells growth inhibition induced by Ru(II) complexes and NAMI-A by using MTT assay. (A) HUVECs (1.5×10^4 cells/mL) were treated with different concentration of complexes for 72 h. (B) HUVECs (5×10^4 cells/mL) were treated with different concentration of complexes for 24 h. *, $P < 0.05$; **, $P < 0.01$ versus control group.

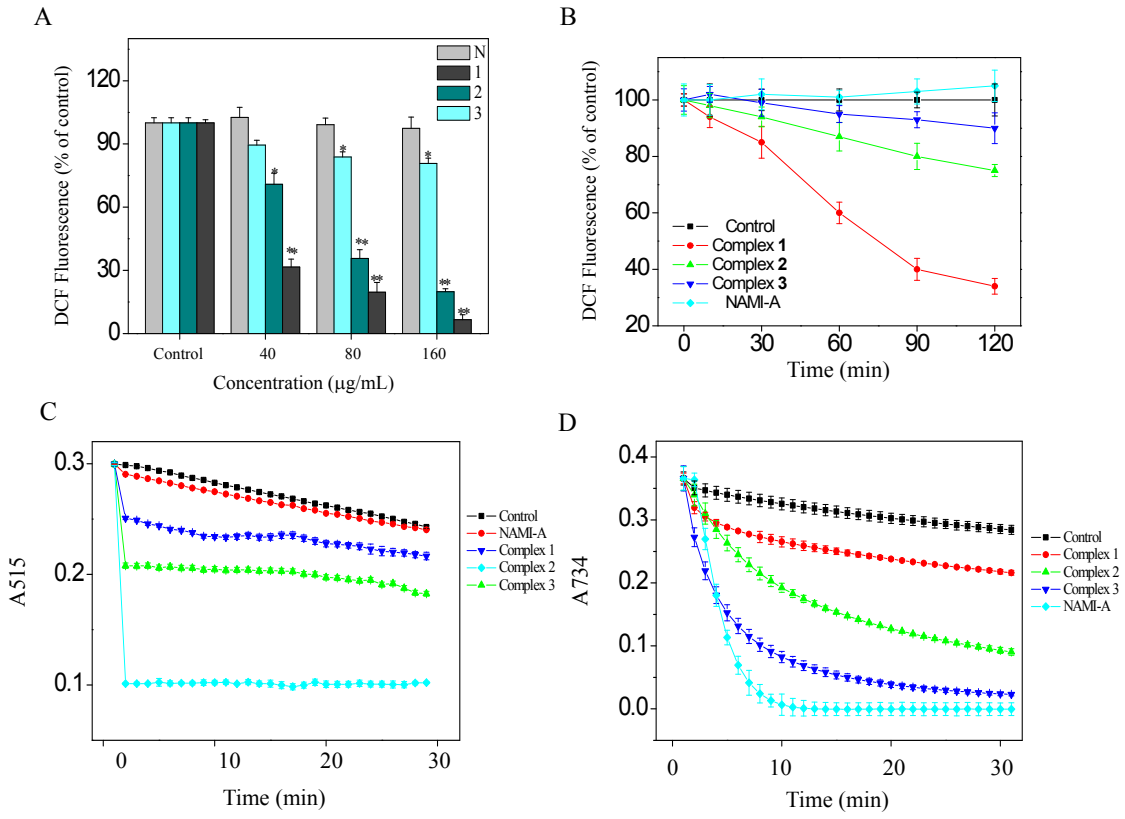

Fig. S5. (A) Determination of intracellular ROS generation in HUVEC cells exposed to Ru complexes (2 h) by DCFH-DA staining assay. (B) Effects of concentration on intracellular ROS generation in complexes (40 μg/mL) treated HUVECs cells. Cell (1×10^6 cells/mL) were pretreated with DCFH-DA for 45 min and then Ru complexes for 2 h. (C) *In vitro* antioxidant activity of Ru(II) complexes (40 μg/mL) as determined by DPPH free radical scavenging assays and (D) by ABTS free radical scavenging assays. All results were obtained from three independent experiments. All results are compared with control group with 0.5% DMSO solution in culture medium. Significant difference between treatment and control groups is indicated at $P < 0.05$ (*) and $P < 0.01$ (**) levels.