Electronic Supplementary Material (ESI) for RSC Medicinal Chemistry.

Supplementary Data for: Drug combinations are effective anti-leishmanials against drug resistant *Leishmania mexicana*.

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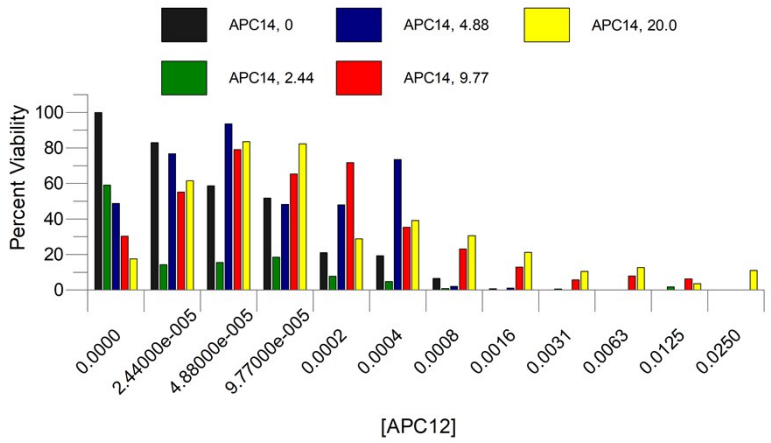
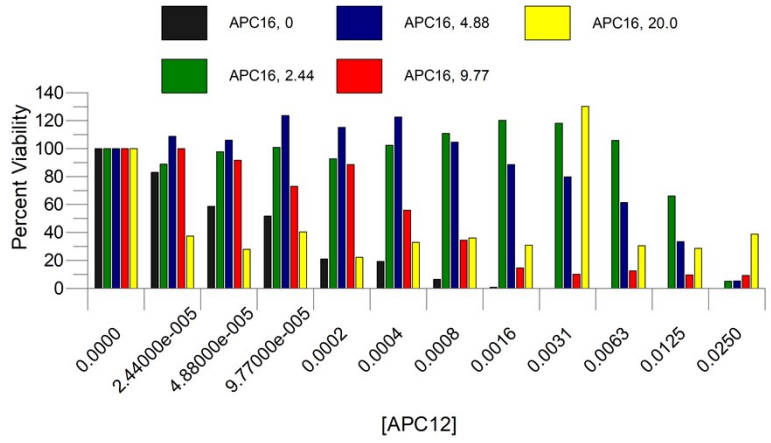
Pages





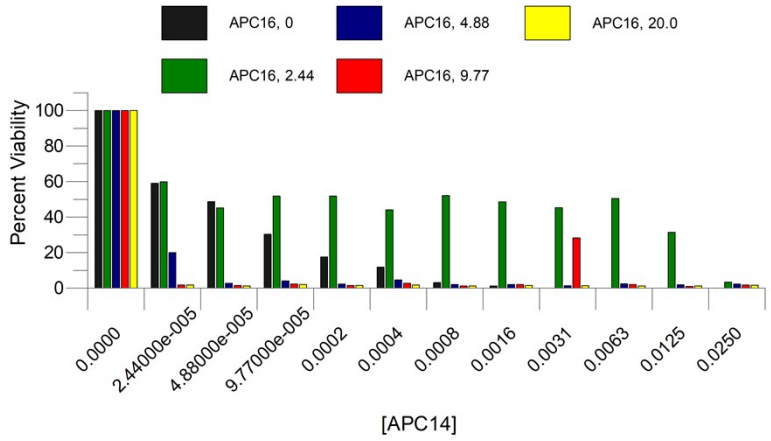


Figure S1. Dose response curves of mixed APCs against *L. mexicana* WT. The dose response curves of varied concentrations of APC12 (2.44x10-5 -0.025µg/ml) with APC14 (top panel) or APC16 (middle panel) at 0, 2.44, 4.88, 9.77, 20.00 µg/ml, and APC14 (2.44x10-5 -0.025µg/ml) with APC16 (bottom panel, at 0, 2.44, 4.88, 9.77,

20.00 µg/ml) against *L. mexicana* WT promastigotes (1×10^5) treated for 72 hours after drug treatment. Cell viability was assessed using the luciferase assay at wavelength/ bandwidth, 545/40 nm. The effect of drug treatment on parasite survival was determined by determining the mean viability for experimental values compared to mean no drug control value. Compounds were tested using an n=3 and data are mean and standard deviations expressed as a percent of the control (parasites incubated with medium alone, n=6).

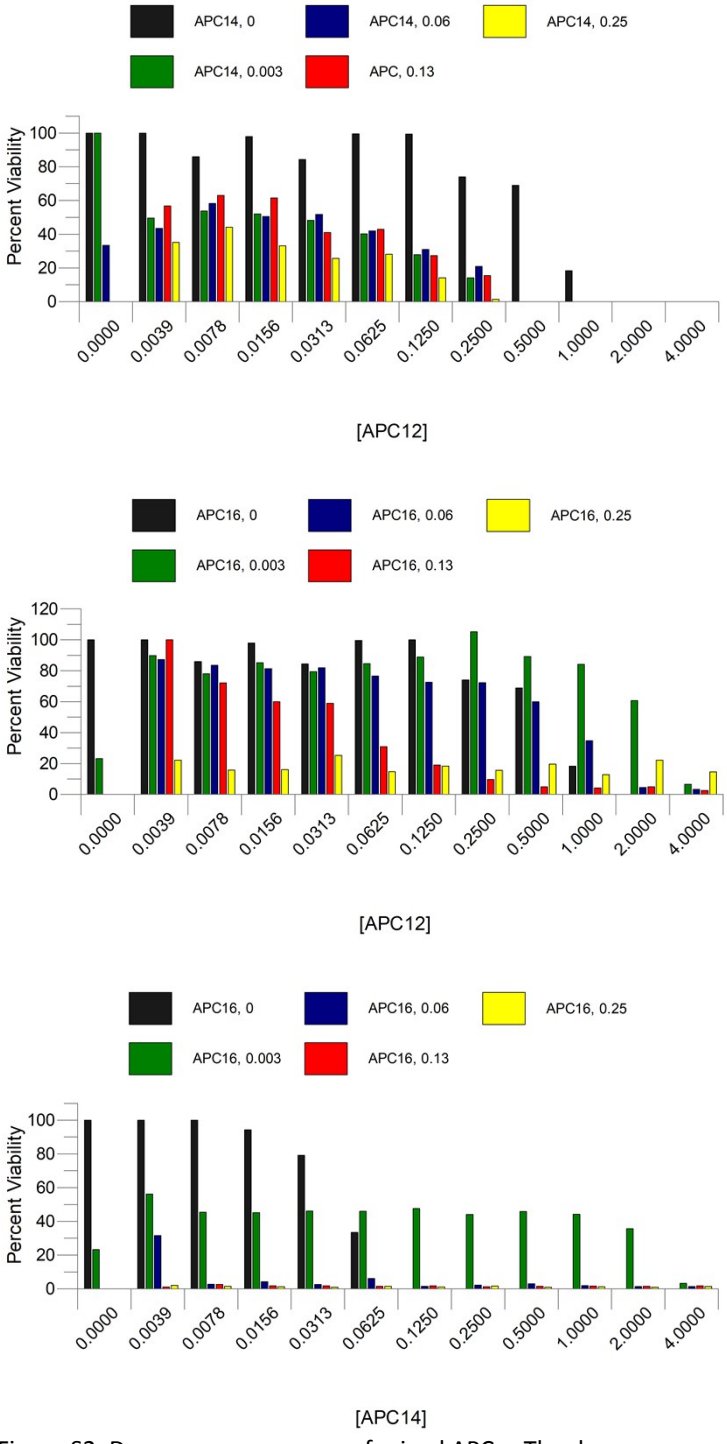


Figure S2. Dose response curves of mixed APCs. The dose response curves of varied concentrations of APC12 (0.003mg/ml to 4mg/ml) with APC14 (top panel) or APC16 (middle panel) at 0, 0.003, 0.06, 0.13, 0.25 µg/ml and APC14 (0.003mg/ml to 4mg/ml) with APC16 at 0, 0.003, 0.06, 0.13, 0.25 µg/ml against *L. mexicana* C12Rx promastigotes (1×10^5), resistant to the APC analogue, APC12 treated for 72 hours after drug treatment. Cell

viability was assessed using the luciferase assay at wavelength/ bandwidth, 545/40 nm. The effect of drug treatment on parasite survival was determined by determining the mean viability for experimental values compared to mean no drug control value. Compounds were tested using an n=3 and data are mean and standard deviations expressed as a percent of the control (parasites incubated with medium alone, n=6).

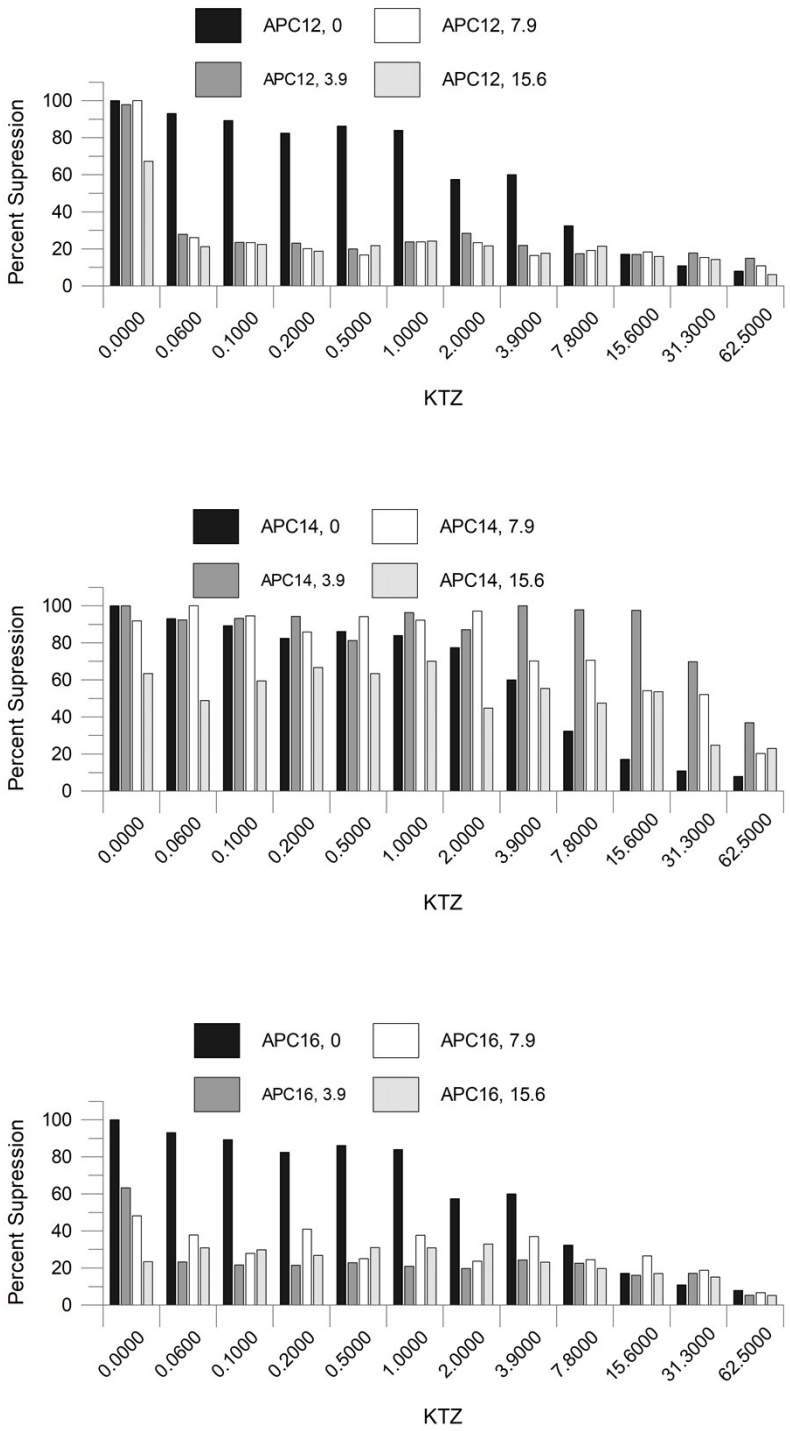


Figure S3. Dose response curves of mixed APCs-KTZ. The dose response curves of varied concentrations of KTZ (0.06-6.25 µg/ml) with APC12 (top panel), APC14 (middle panel) and APC16 (bottom panel) at 0, 3.9, 7.9 and 15.6 µg/ml against *L. mexicana* C12Rx promastigotes (1×10^5), resistant to the APC analogue, APC12 treated for 72 hours after drug treatment. Cell viability was assessed using the luciferase assay at wavelength/ bandwidth, 545/40 nm. The effect of drug treatment on parasite survival was determined by determining the mean viability for experimental values compared to mean no drug control value. Compounds were tested

using an n=3 and data are mean and standard deviations expressed as a percent of the control (parasites incubated with medium alone, n=6).

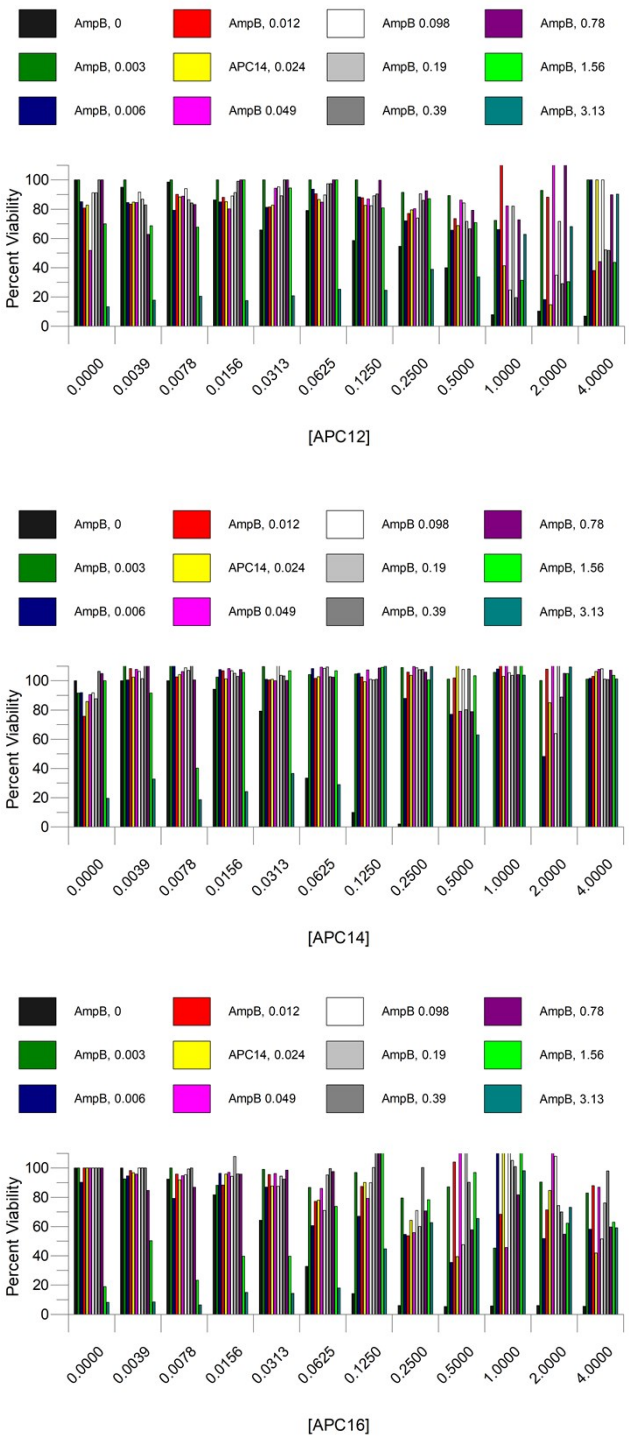


Figure S4. Dose response curves of mixed APCs-Amp B. The dose response curves of varied concentrations of APC12 (top panel), APC14 (middle panel) and APC16 (bottom panel) at 0.003mg/ml to 4mg/ml with AmpB 0, 0.003, 0.006, 0.012, 0.024, 0.049, 0.096, 0.19, 0.39, 0.78, 1.56 and 3.13 µg/ml against *L. mexicana* C12Rx promastigotes (1×10^5), resistant to the APC analogue, APC12 treated for 72 hours after drug treatment. Cell viability was assessed using the luciferase assay at wavelength/ bandwidth, 545/40 nm. The effect of drug treatment on parasite survival was determined by determining the mean viability for experimental values compared to mean no drug control value. Compounds were tested using an n=3 and data are mean and standard deviations expressed as a percent of the control (parasites incubated with medium alone, n=6).