Electronic Supplementary Material (ESI) for New Journal of Chemistry

Highly cytotoxic diruthenium trithiolato complexes of the type $[(\eta^6\text{-}p\text{-}MeC_6H_4Pr^i)_2Ru_2(\mu_2\text{-}SR)_3]^+$: Synthesis, characterization, molecular structure and *in vitro* anticancer activity

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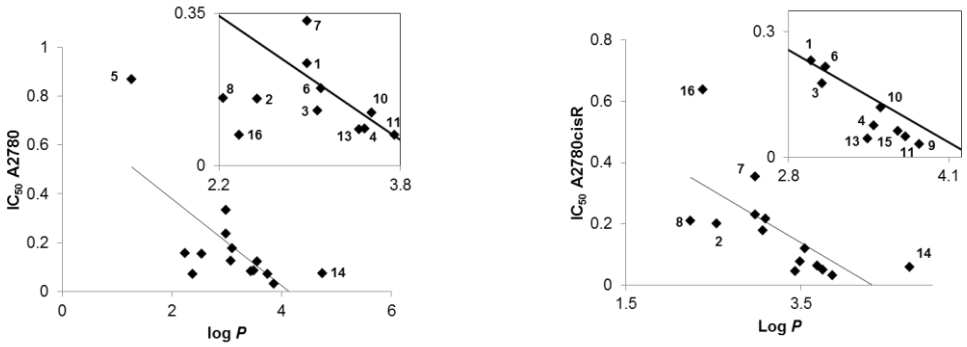
Dedicated to Professor Bernard Meunier on the occasion of his retirement

Fig. S1. IC_{50} values of complexes **1 - 16** towards the A2780 and A2780cisR cell lines plotted against the partition coefficients (log *P*) of the corresponding thiols.



For the entire series of 16 complexes, the correlation between the log *P* values as a function of the IC_{50} values shown in Figure S1 leads to linear regressions expressed by the equations: Y = -0.1781x + 0.7363 (determination coefficient R^2 = 0.49) for the A2780 cell line and y = -0.1695x + 0.7308 (R^2 = 0.47) for the A2780cisR cell line. As it can be seen in Table 1 and from Figure S1, very hydrophilic complexes (**5** and **12**) are clearly outside the linear regression, suggesting that the biological activity is mainly determined by the cellular uptake of the compounds. If the linear regression is performed for the 10 complexes exhibiting a log *P* value in the range 3 – 4, much better determination coefficients are obtained: R^2 = 0.74 for the A2780 cell line and R^2 = 0.77 for the A2780cisR cell line. Thus, the results are in agreement with those obtained for our previous series of ruthenium compounds: For all cationic dinuclear *p*-cymene ruthenium complexes bridged by three thiophenolato ligands, decreasing IC_{50} values correlate with the aliphatic character and lipophilicity of the corresponding thiol.