Table S1 Anticancer In vivo studies with Vanadium Compounds.

Organ	Pharmacological effects	Dose	References
Breast	Showed anticancer actions in Swiss albino mice inoculated with Ehrlich ascites carcinoma cells. The compound ($[VL_2Cl_2]Cl.H_2O$) decreased the tumor volume from 10.43 ± 1.33 to 1.08 ± 0.28 mm^3 and inhibited the DNA synthesis (values of control 6.21 ± 0.96 and treatment 2.27 ± 0.27(mg of DNA/ 10^6 cells)	10 mg/kg; 9 days	48
Breast	Increased survival of CF1 mice inoculated with Ehrlich ascites cancer cells. Vanadium produced mitotic aberrations and caused cell cycle arrest in G2 phase	80 mg/kg	49
Colon	Decreased the multiplicity of ACF, adenoma and adenocarcinoma induced by DMH in male Sprague–Dawley rats. The protective effects of vanadium against carcinogenesis in rat colon is mediated by removal of O(6)-	4.27 μmol/L; 32 weeks	50

	methylguanine DNA adducts, p53 expression and apoptotic induction		
Liver	Suppressed the incidence, total number and multiplicity of tumors induced by 2-AAF in male Sprague–Dawley rats	4.27 μmol/L; 12 weeks	51
Liver	Diminished the incidence (100% vs 42%), size (40 mm vs 27 mm), number (383 vs 52) and multiplicity of foci and nodules induced by DENA in male Sprague–Dawley rats	4.27 μmol/L; 16 weeks,	52
Liver	SOV inhibits in vivo tumor growth reducing three times the size and volume of tumor. The main mechanism of action involved in this anticancer activity are apoptosis and autophagy.	10-20 mg/Kg, 21 days	53