**ABSTRACT**

A Co(III) Schiff base complex with the formula [Co(L)2]Cl · H2O (I) (L = monoanionic tridentate Schiff base ligand derived from salicylaldehyde and ethylene diamine) has been synthesized and characterized by elemental analysis and spectroscopic techniques. The structure of I was confirmed by single crystal X-ray diffraction studies (CIF file CCDC no. 1009967), which showed the presence of two Schiff base molecules in an octahedral fashion. The complex has been screened for its in vitro antibacterial and anticancer activities. Complex I was found to be more active in anti-microbial and anti-cancer activity than the ligand.