

**Design, synthesis, characterization and DNA-binding studies of triphenyltin(IV) complex of *N*-glycoside (GATPT) a sugar based apoptosis inducer: *In vitro* and *in vivo* assessment of induction of apoptosis by GATPT**

Sartaj Tabassum<sup>a\*</sup>, Suvigya Mathur<sup>a</sup>, Farukh Arjmand<sup>a</sup>, Kanchan Mishra<sup>a</sup>, Kakoli Banerjee<sup>b\*</sup>

<sup>a</sup> Department of Chemistry, Aligarh Muslim University, Aligarh-202002, India.

<sup>b</sup> Eukaryotic Gene Expression Lab, National Institute of Immunology, New Delhi, India.

\* Corresponding authors.

E-mail addresses: [tsartaj62@yahoo.com](mailto:tsartaj62@yahoo.com) (S. Tabassum),

**Figure Captions**

**Figure S1.** <sup>1</sup>H-<sup>1</sup>H COSY spectrum of GATPT in DMSO-d<sub>6</sub>.

**Figure S2.** <sup>1</sup>H-<sup>13</sup>C-HSQC spectrum of GATPT in DMSO-d<sub>6</sub>.

**Figure S3.** <sup>1</sup>H-<sup>13</sup>C-HMBC spectrum of GATPT in DMSO-d<sub>6</sub>.

**Figure S4.** CD spectra of GATPT alone (1 x 10<sup>-4</sup> M, DMSO, 25 °C) (**curve a**) and GATPT in presence 1 x10<sup>-4</sup> M of CT DNA. (**curve b**).

**Figure S5.** Effect of increasing amount of GATPT on the relative viscosity of CT DNA at 29 ± 0.1 °C. [DNA] = 0.8 x 10<sup>-5</sup> M, pH 7.2.

**Figure S6.** Effect of GATPT on **(a)** PC-12 **(b)** SY5Y and **(c)** N2A proliferation after 12 hours of treatment. Since GATPT is DMSO soluble, cells treated with DMSO without GATPT were used as controls.

**Figure S7.** Caspase activity induced by GATPT (2.62µM) in PC-12 cells at 0 to 18 hours was expressed as a percentage of the 0-hour time value.

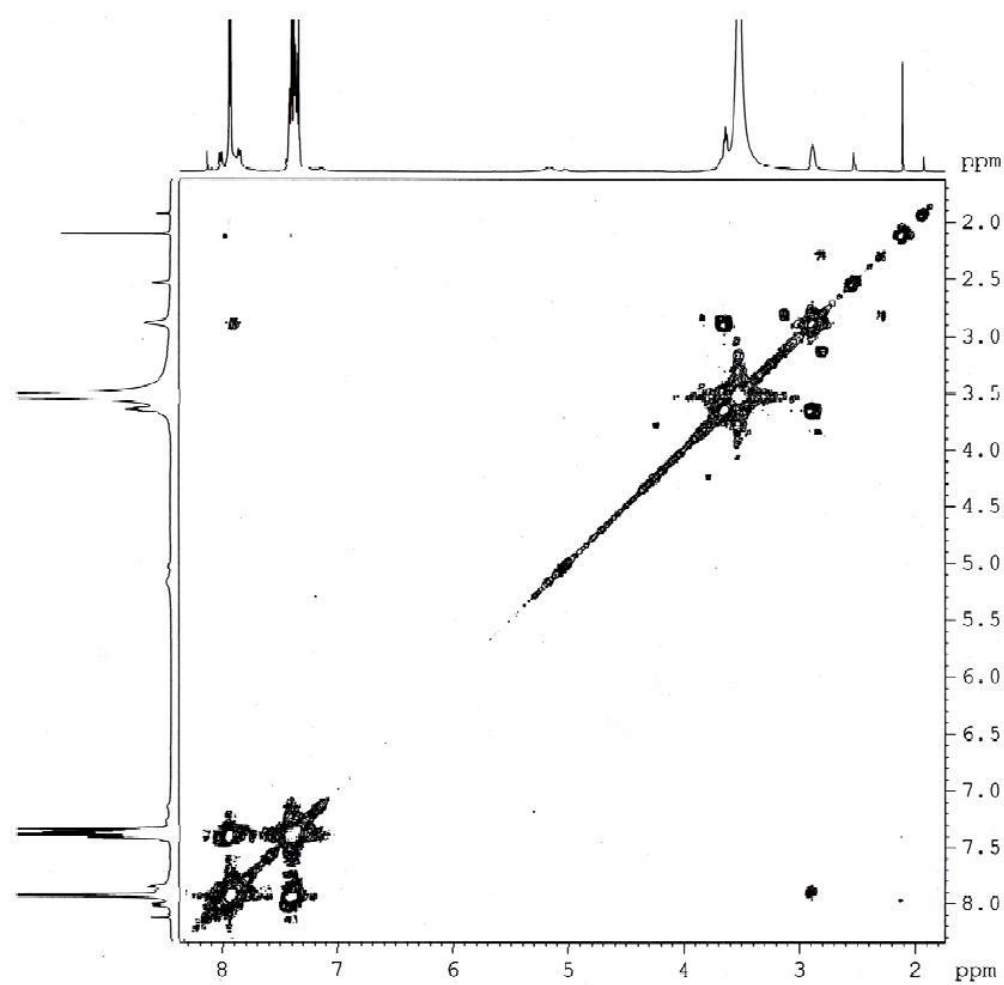


Fig. S1

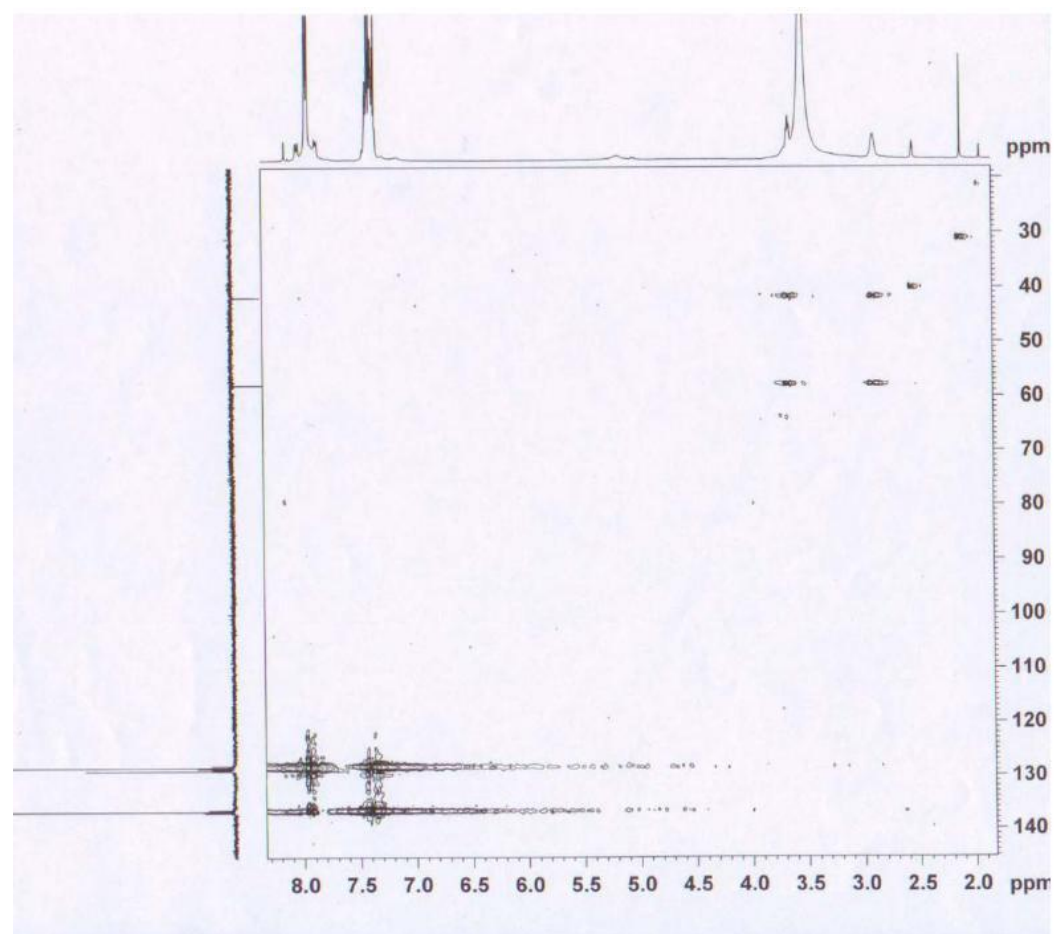


Fig. S2

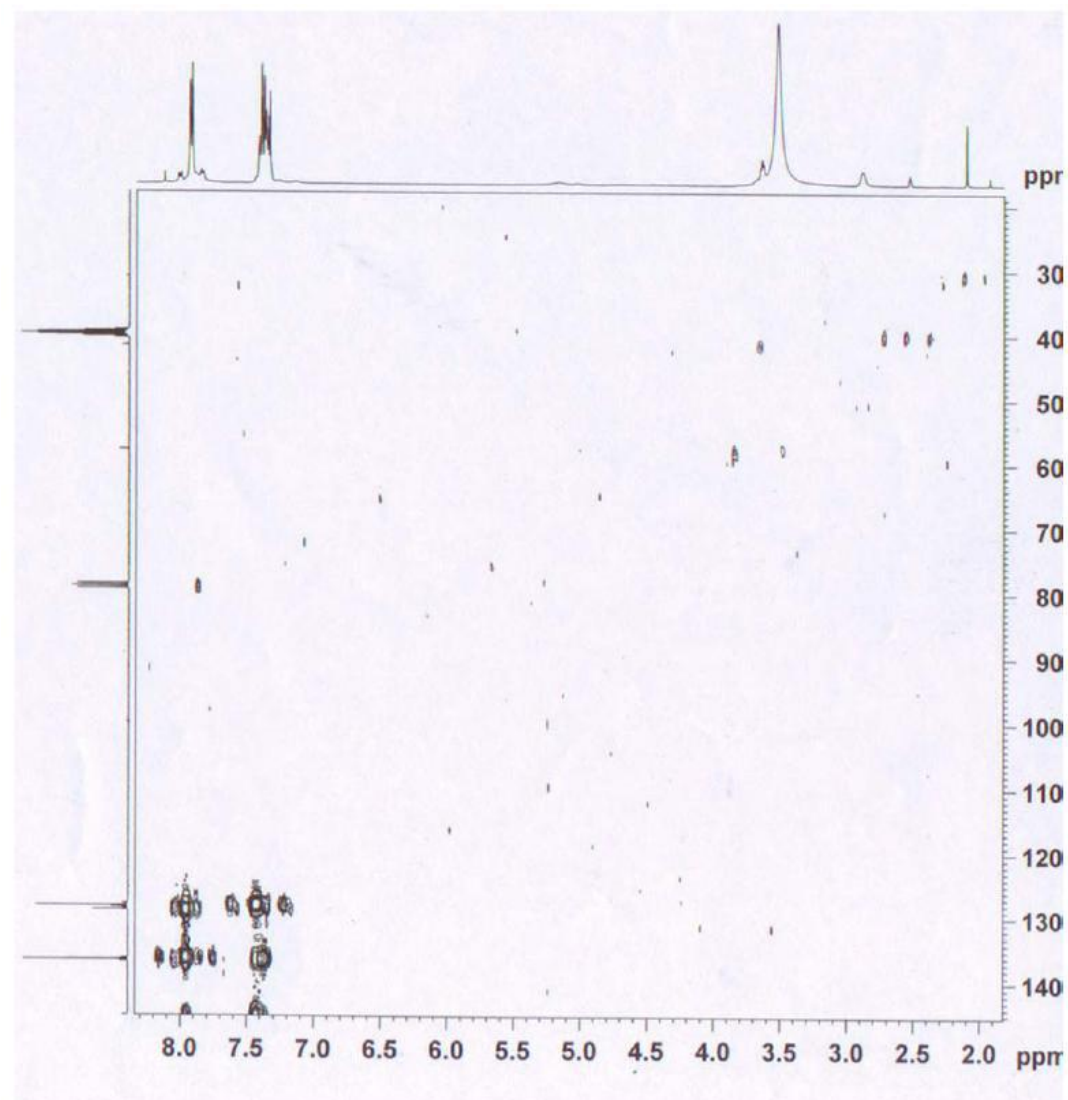


Fig. S3

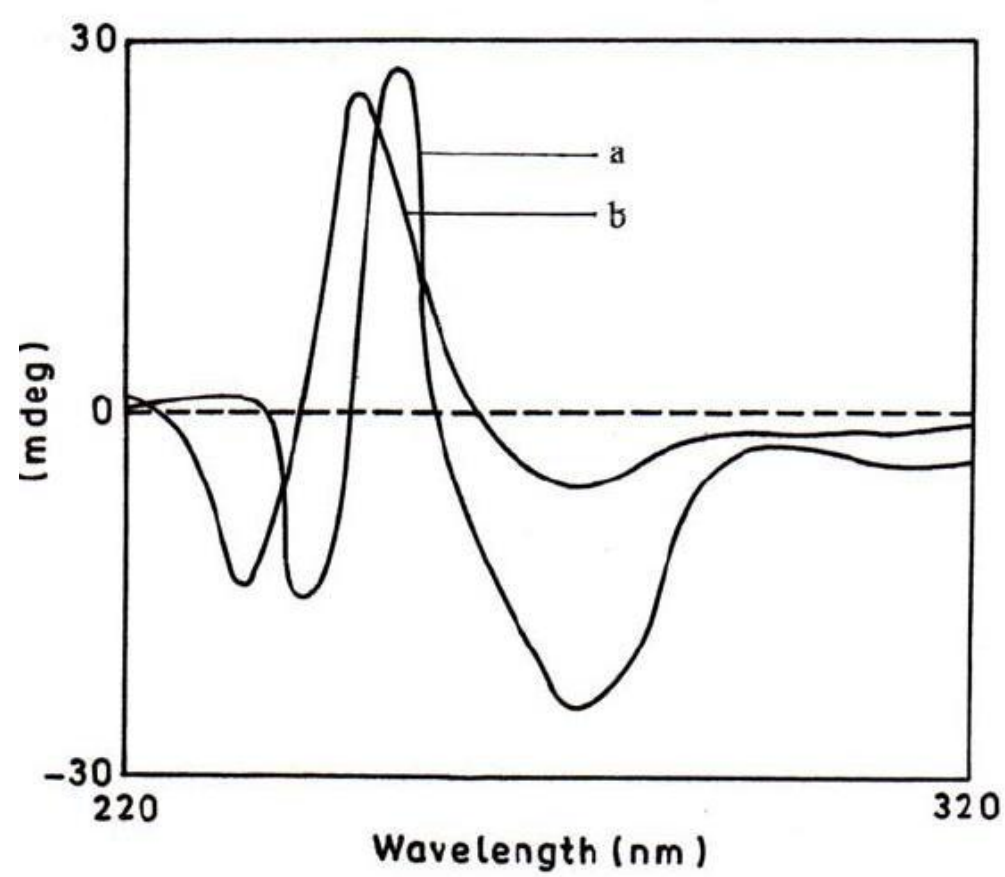


Fig. S4

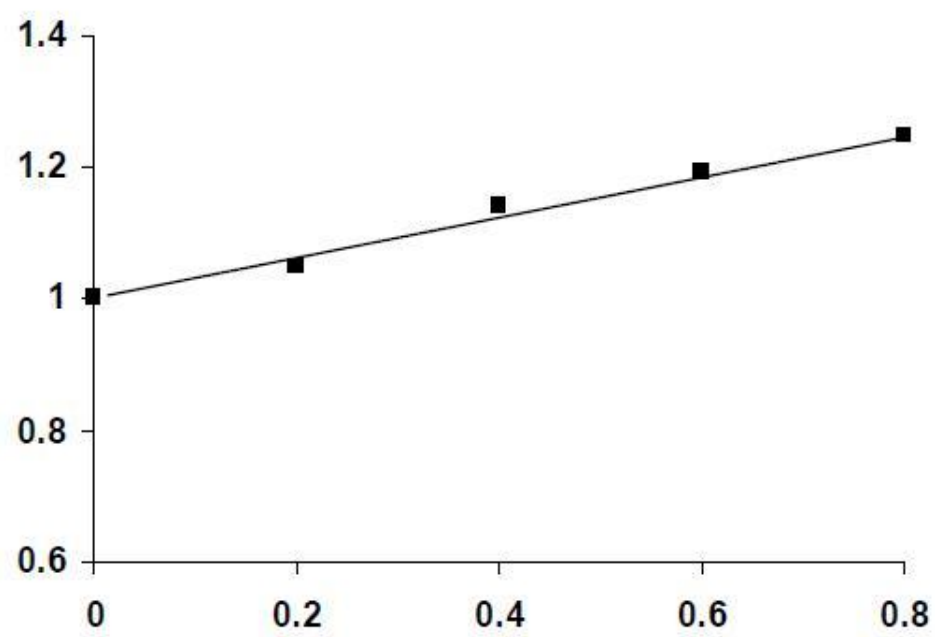


Fig. S5

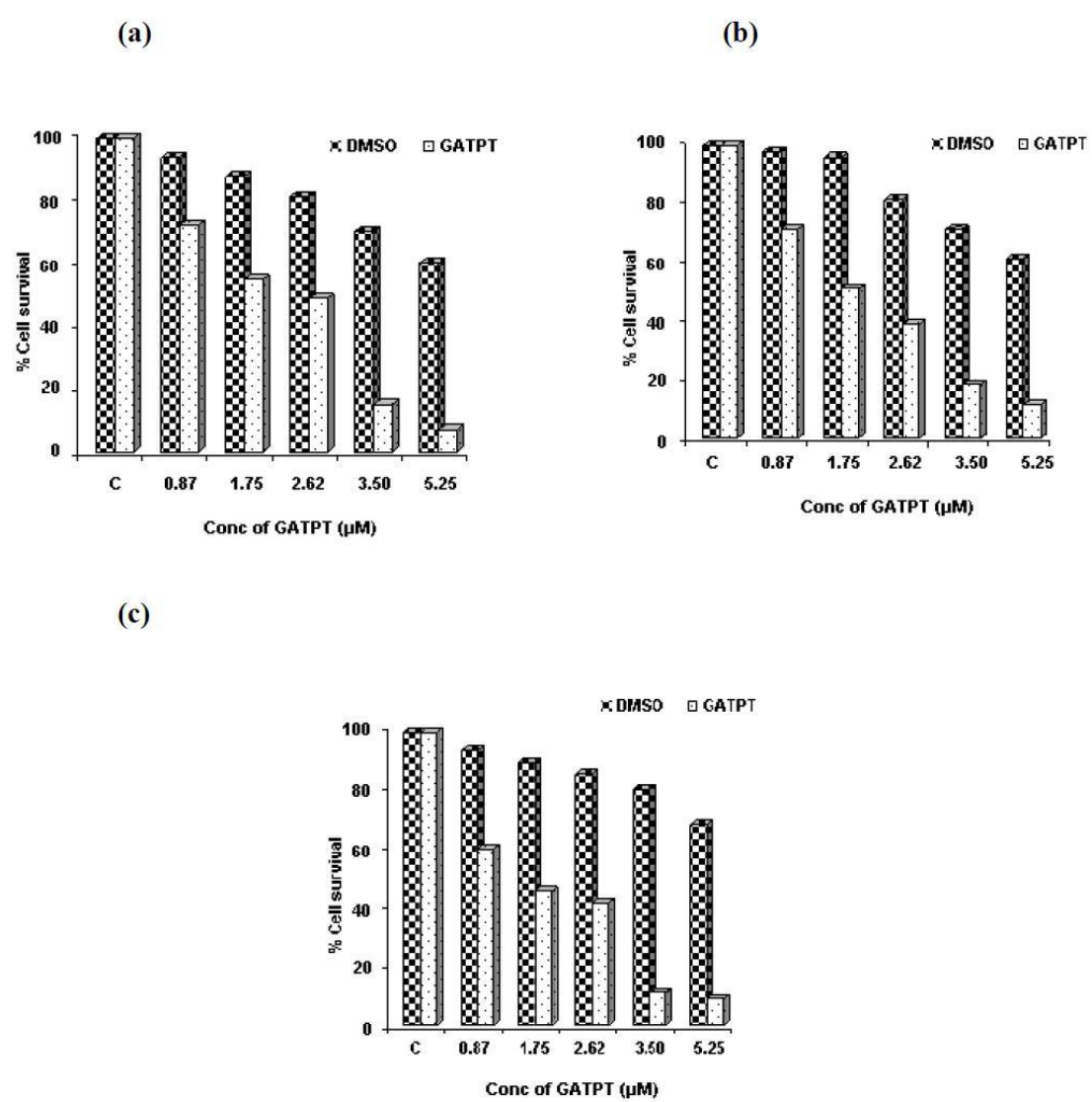


Fig. S6

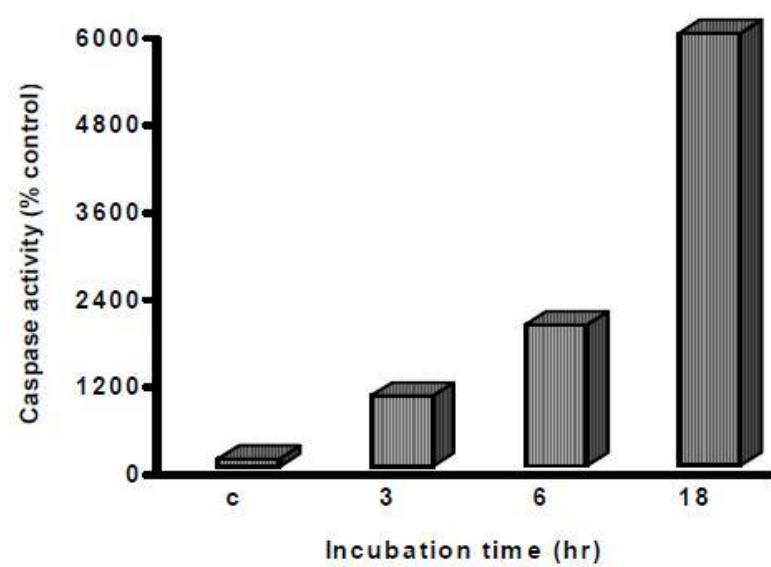


Fig. S7

Table S1. 2D Homo and Hetero Nuclei NMR Correlation data of the complex GATPT (ppm)

Skeletal protons of N-glycoside ~2.52-3.63	Signals of N-glycoside ~ 50	Signals of N-glycoside ~ 50
Aromatic Protons ~ 7.5	Aromatic Carbon ~ 132	Aromatic Carbon ~ 132