Supporting Information

pH-sensitive Guar Gum Grafted Lysine-β-Cyclodextrin Drug Carrier for Controlled Releases on Cancer Cells

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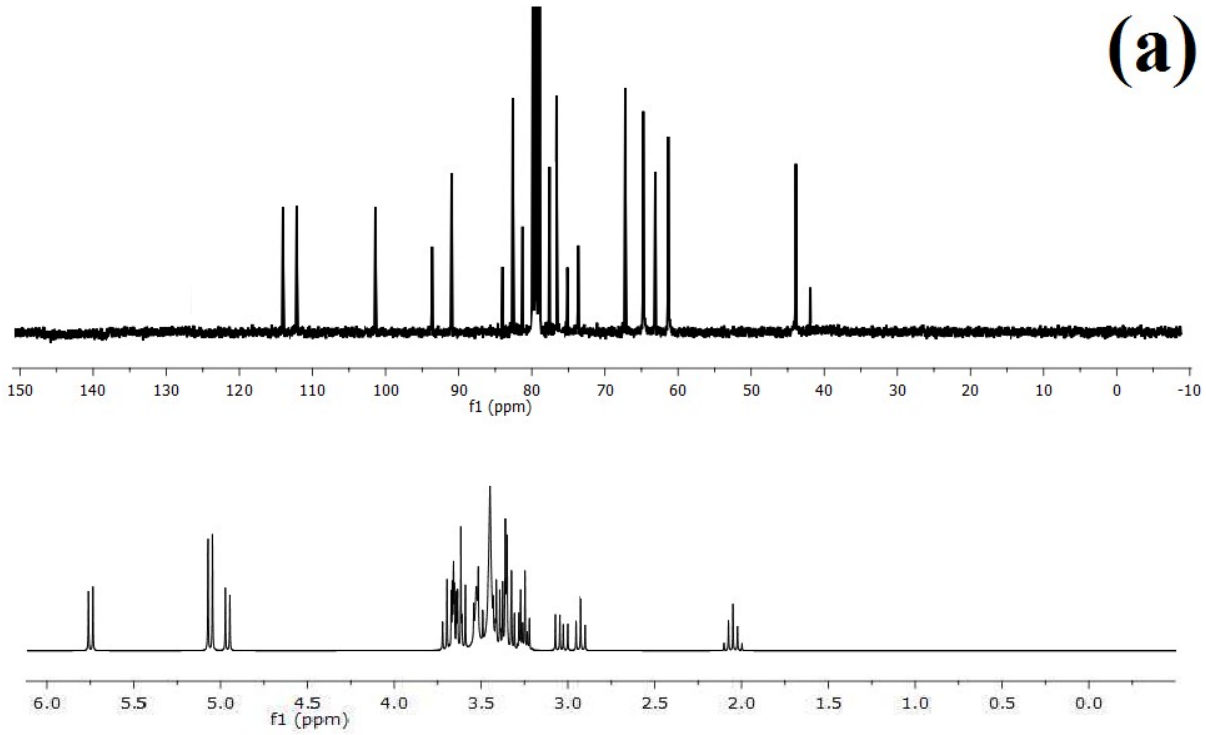

Figure S1. ^{1}H and ^{13}C NMR spectrum of guar gum

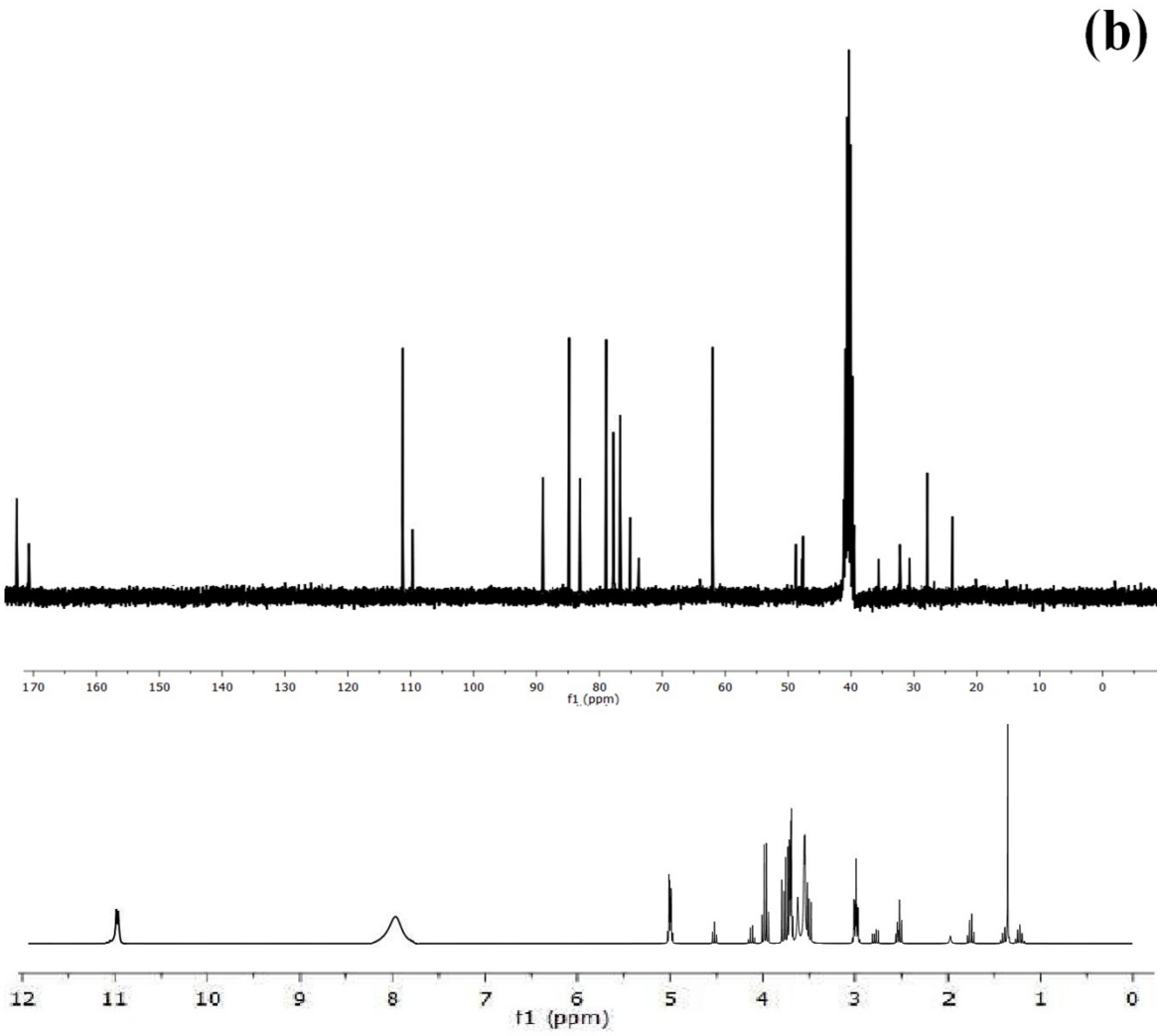

Figure S2. ^{1}H and ^{13}C NMR spectrum of guar gum

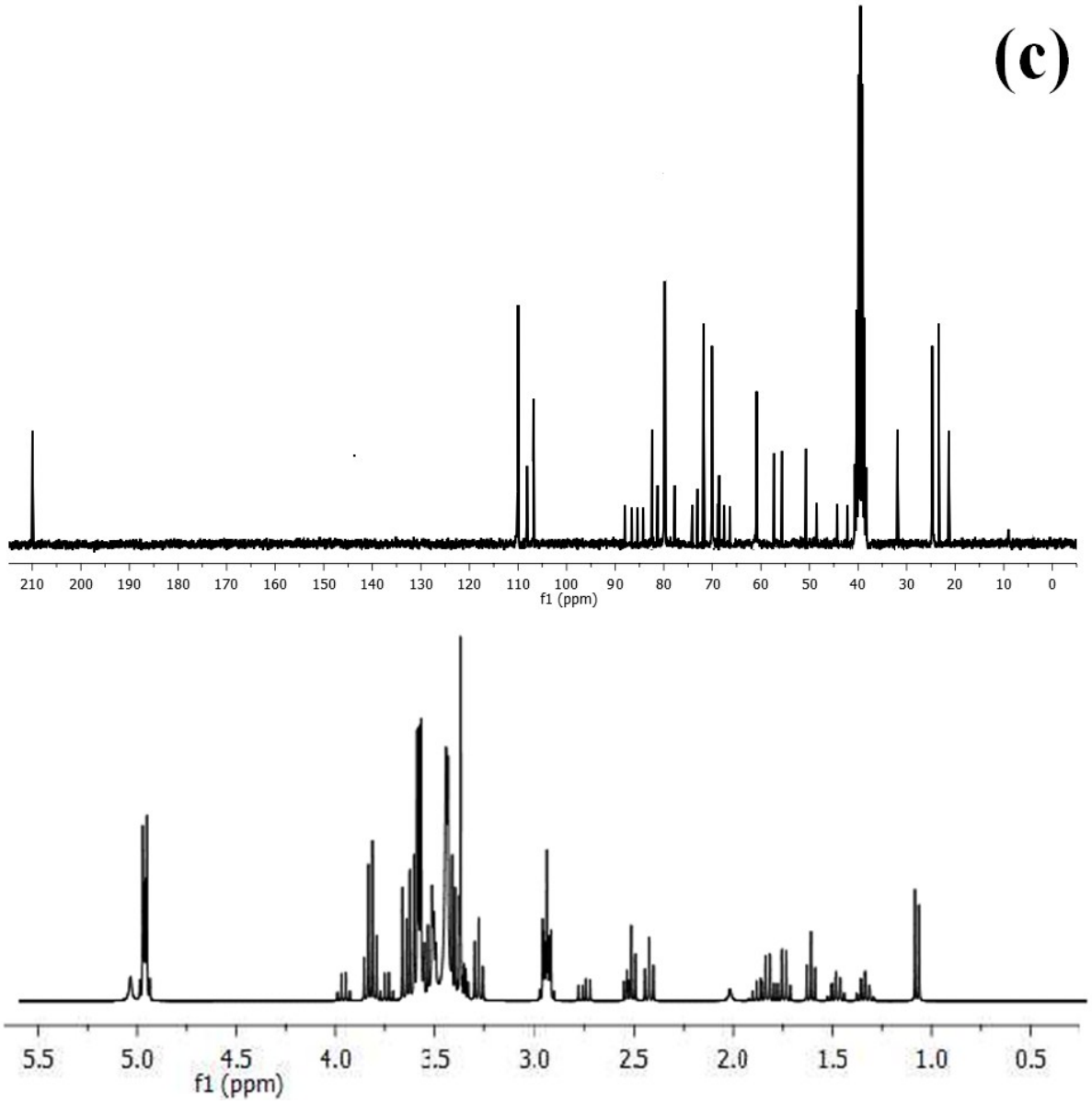

Figure S3. ^{1}H and ^{13}C NMR spectrum of guar gum

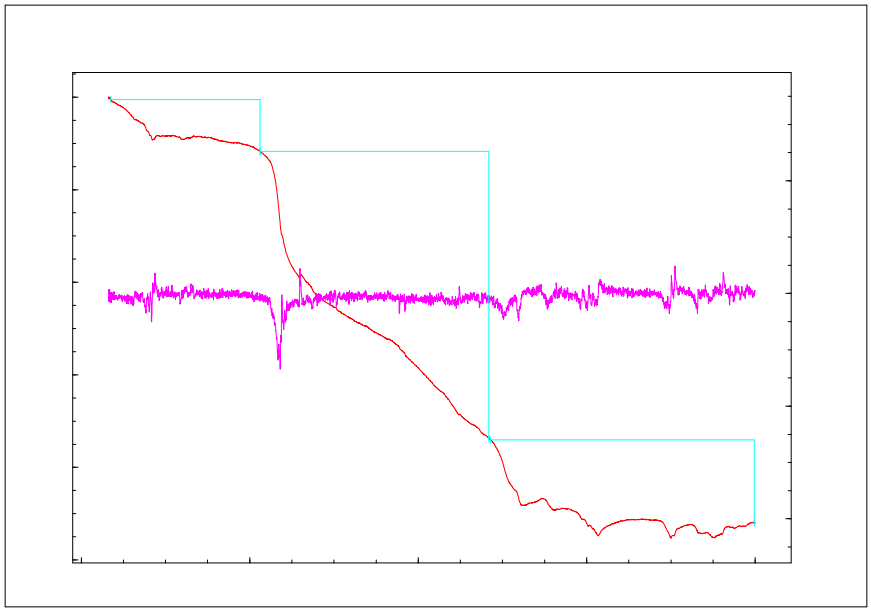

Figure S4. TGA curves of β-CD-L

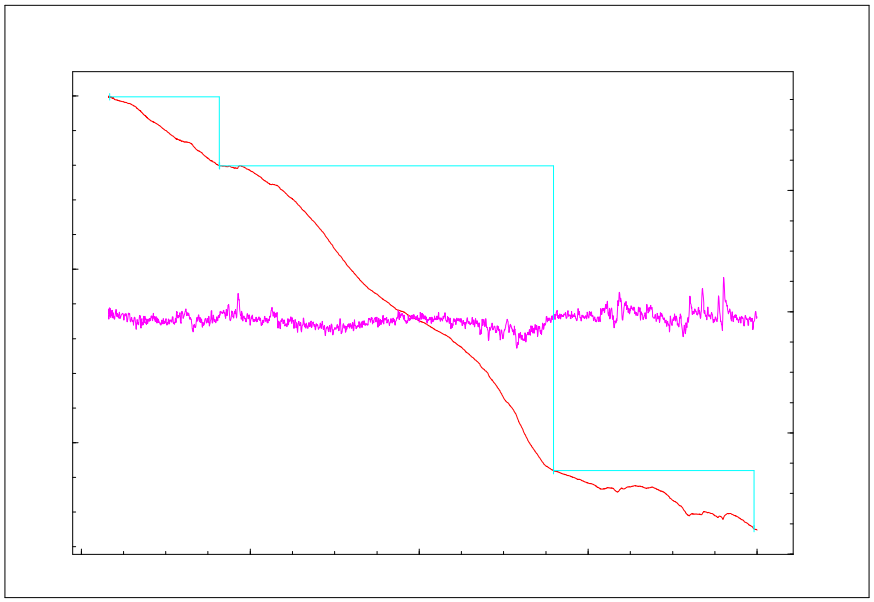

Figure S5. TGA curves of GG-g-L-β-CD

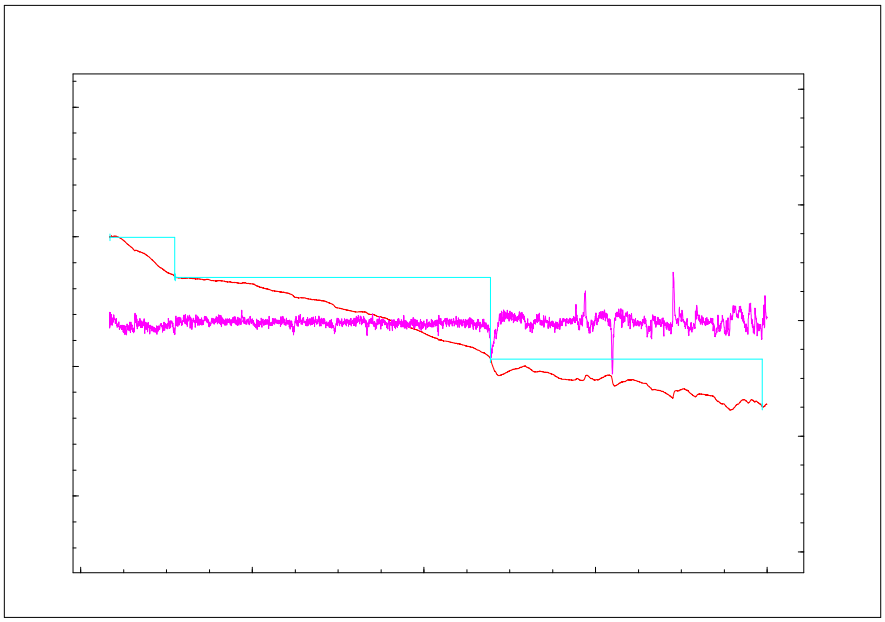

Figure S6. TGA curves of 5-FU loaded GG-g-L-β-CD

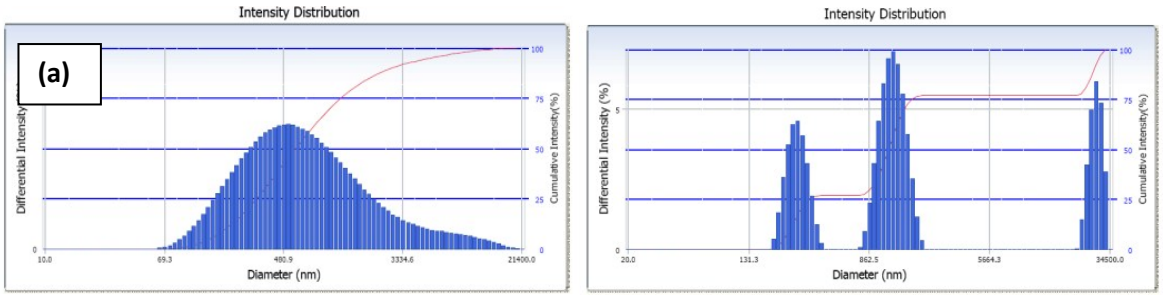

Figure S7. Particles size distribution of (a) 5-FU loaded GG-g-L-β-CD micro-carrier and (b) 5-FU loaded GG-g-L-β-CD polymer.

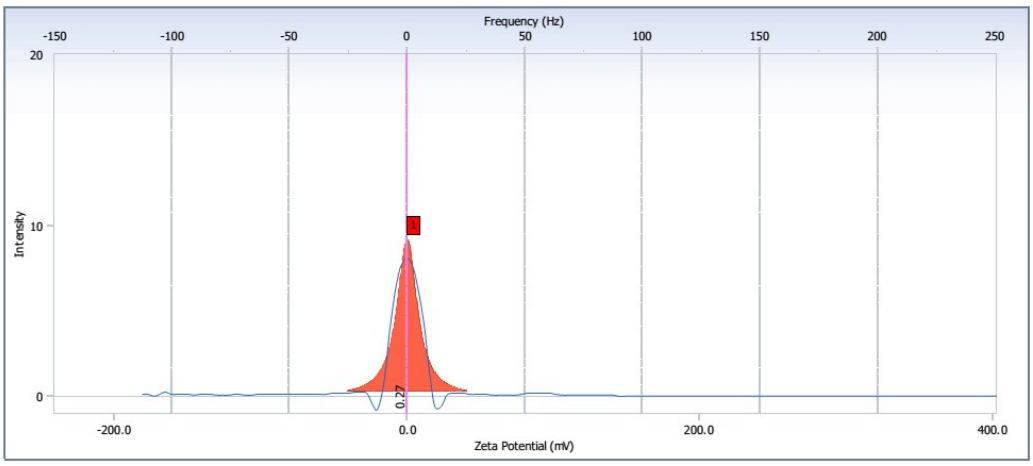

Figure.S8. Zeta potential of 5-FU loaded GG-g-L-β-CD polymer.

3.6 5-FU encapsulation studies

The encapsulation of 5-FU into the polymeric microspheres was done by solvent evaporation technique. The choice of encapsulation method was based on the solubility of both polymer and drug. In this approach,polymer was dispersed in water and 5-FU dissolved in ethanol. The encapsulation efficiency of 5-FU is shown in the Figure. 8. The intensity of absorbance gradually decreases as an increase in time. It indicates that the successful encapsulation of 5-FU into GG-g-L-β-CD microcarrier.

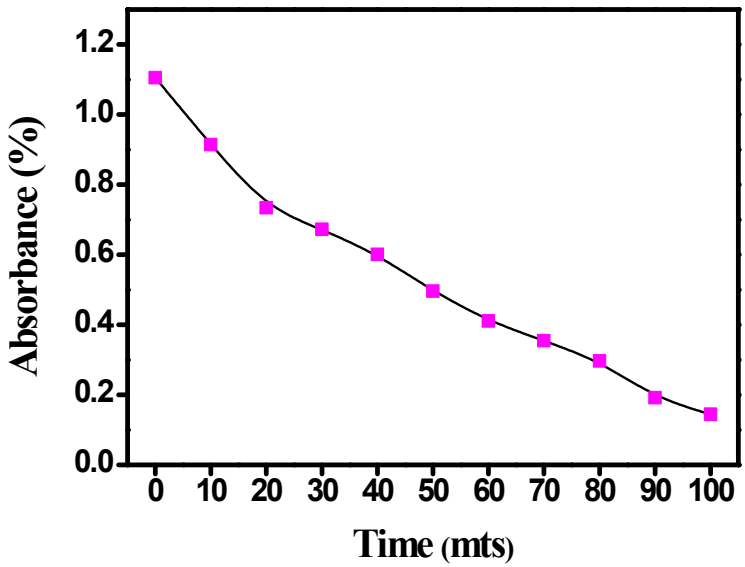

Figure S9. 5-FU encapsulation profile into GG-g-L-β-CD

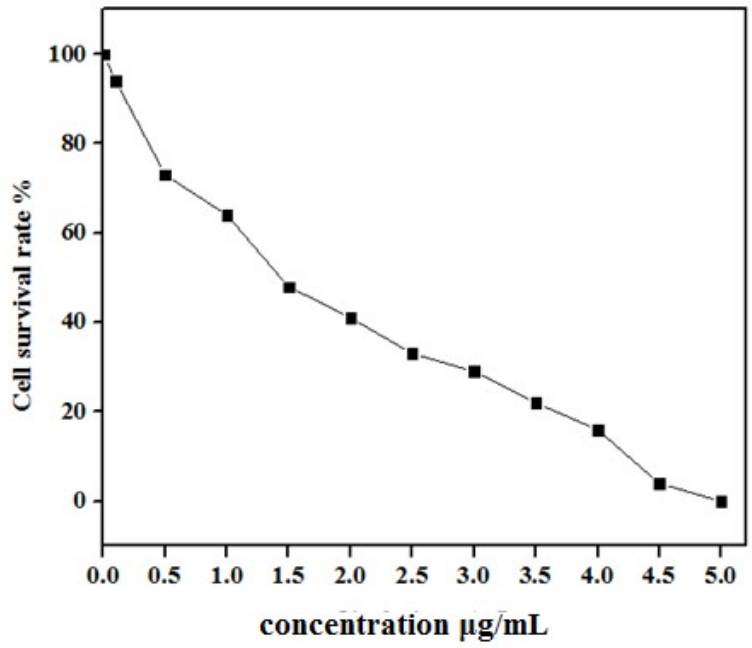

Figure S10. Graph of MTT assay after 24 h showing the rate of viability of KB cells after exposure to different concentrations (0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0, 4.5, 5.0 µg/ml) of the 5-FU loaded GG-g-L-β-CD