Supplementary information

Biogenic carbon dots derived from the microwave carbonization of amino acid mixture: Cellular biocompatible, biomolecular probes and live cell imaging agents

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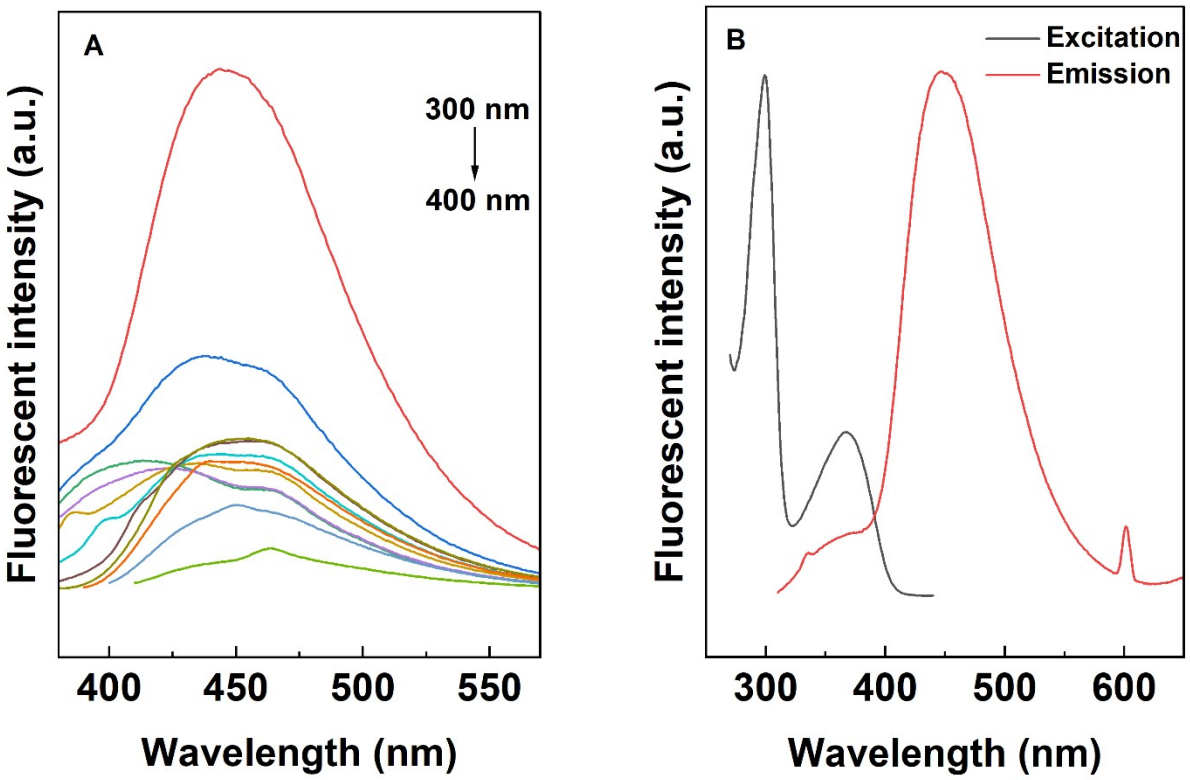

Figure S1 (A) Fluorescence emission spectra of G+T-CDs at different excitation wavelength; (B) Fluorescence excitation and emission spectra of G+T-CDs in aqueous solution

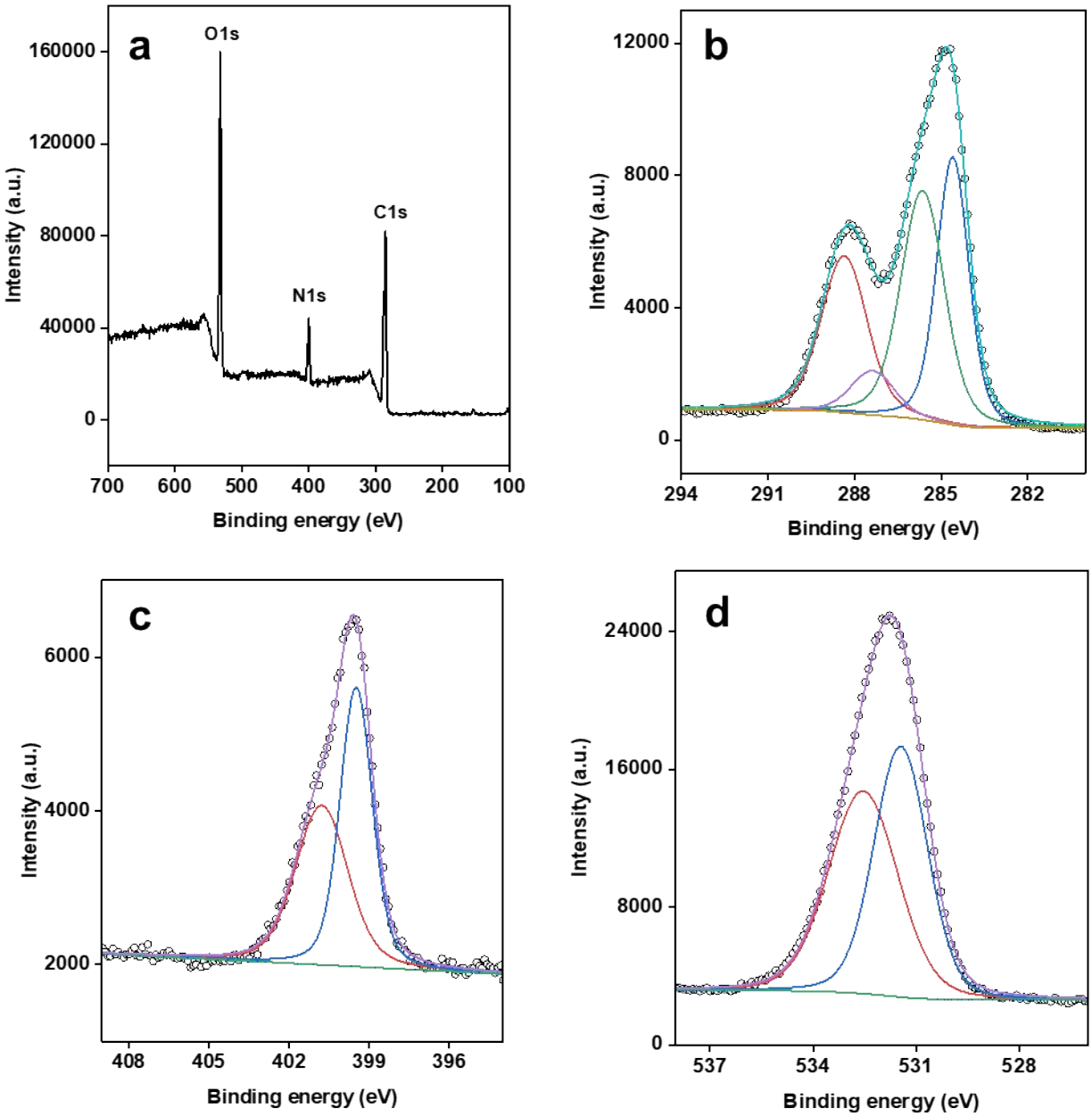

Figure S2 Wide XPS spectra of G-CDs (a); Deconvolution for G-CDs in the C1s (b), N1s (c) and O1s (d) binding energy regions

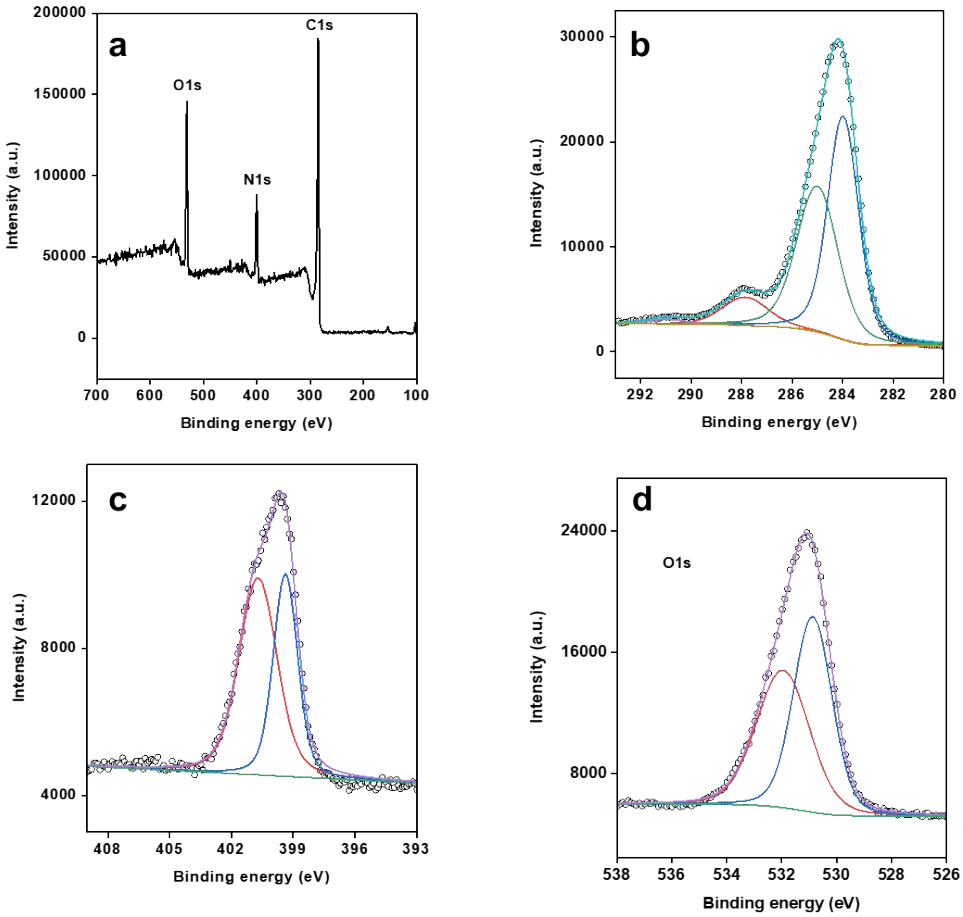

Figure S3 Wide XPS spectra of T-CDs (a); Deconvolution for T-CDs in the C1s (b), N1s (c) and O1s (d) binding energy regions

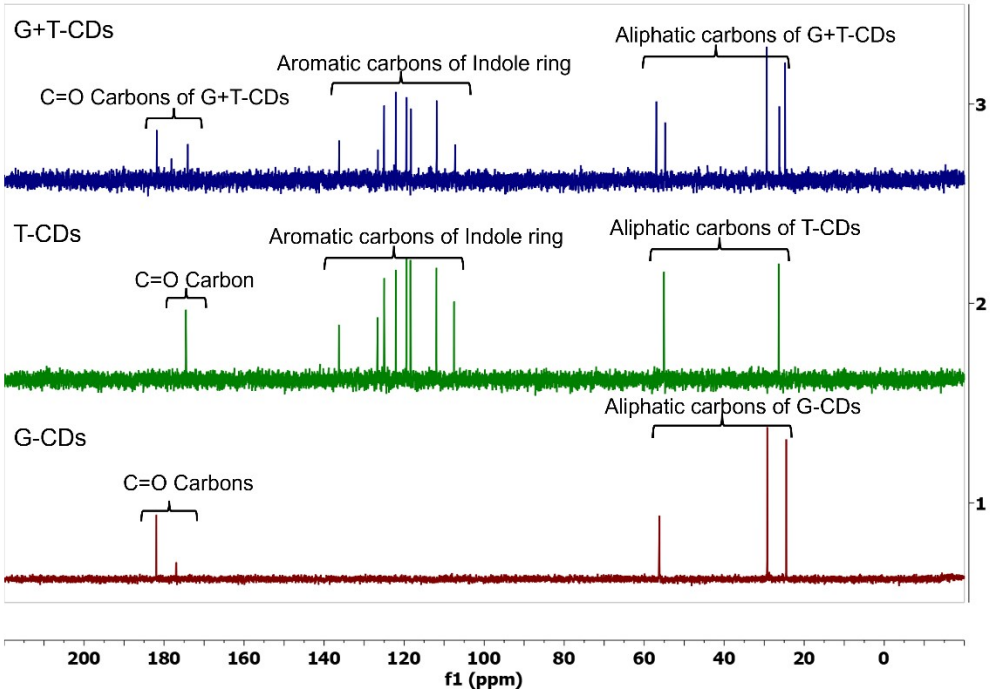

Figure S4 ^{13}C spectra of G+T-CDs, T-CDs and G-CDs

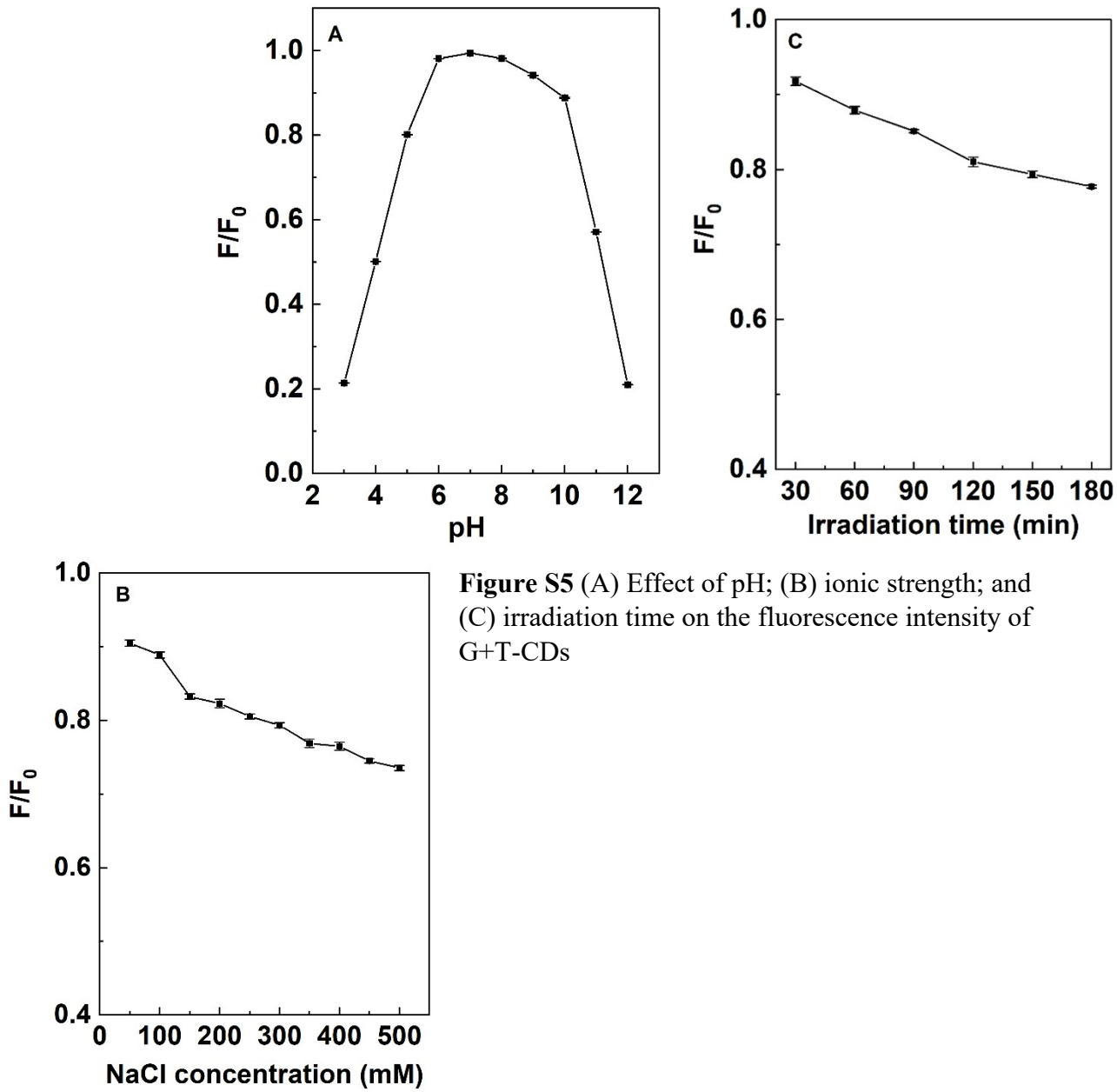

Figure S5 (A) Effect of pH; (B) ionic strength; and (C) irradiation time on the fluorescence intensity of G+T-CDs

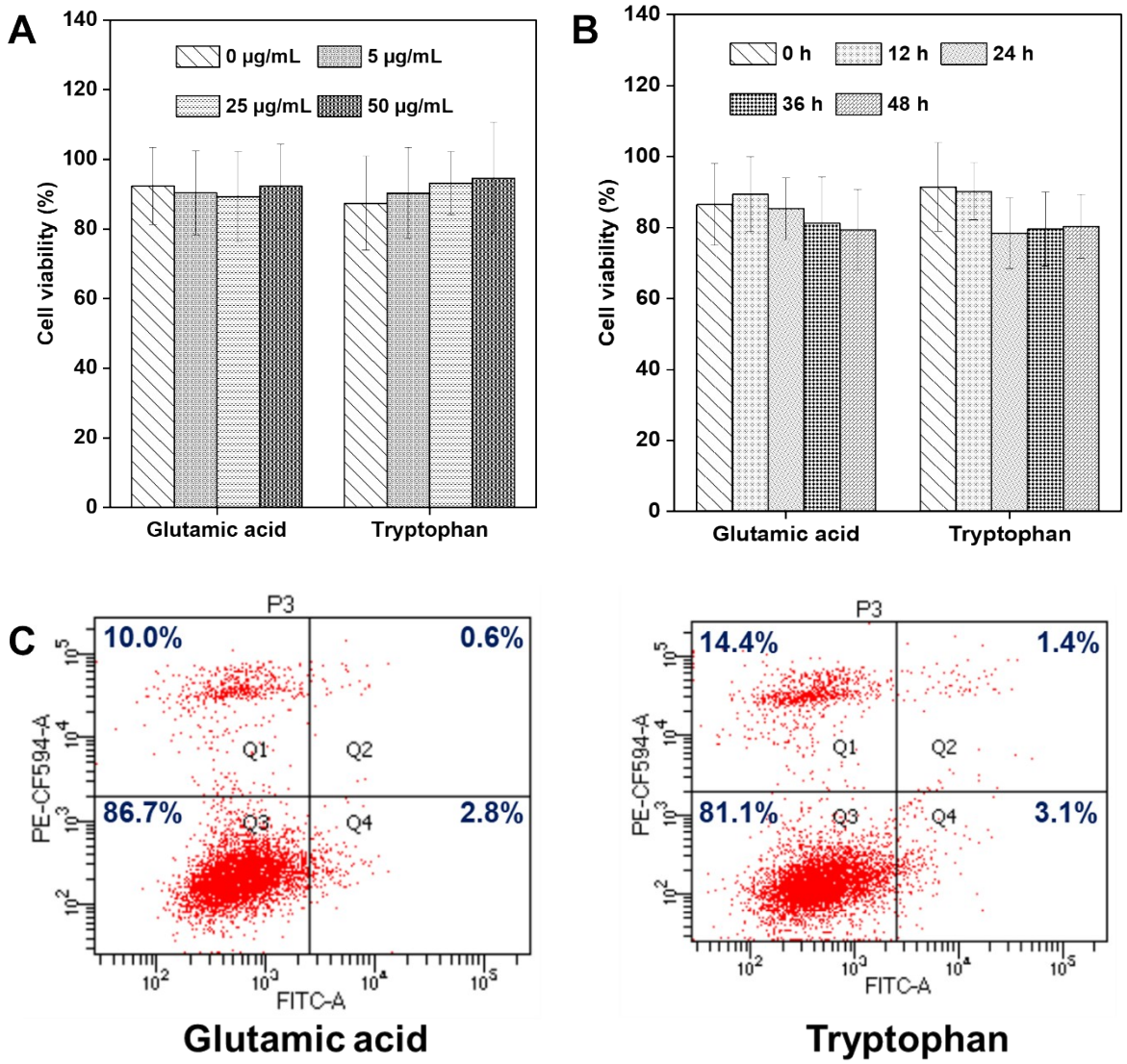

Figure S6 Cellular toxicity assessment of glutamic acid and tryptophan at different concentrations (A) and time intervals (B); Cellular apoptosis study on glutamic acid and tryptophan treated MCF-7 cells (C)

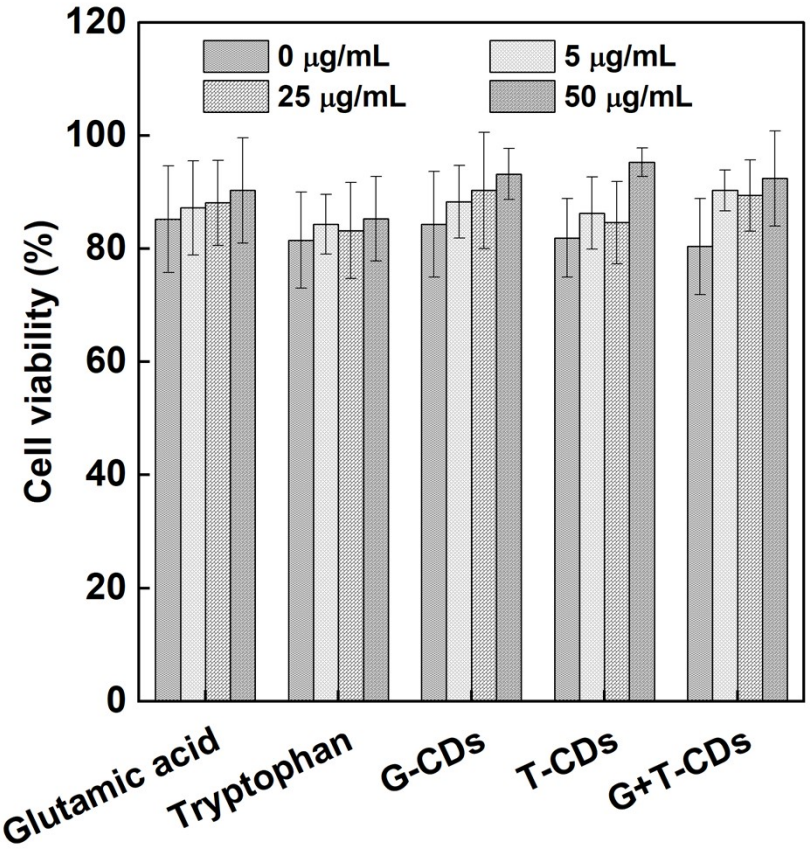

Figure S7 Cellular toxicity assessment of glutamic acid, tryptophan, G-CDs, T-CDs and G+T-CDs at different concentrations on fibroblast cells