**Supplementary Information**

# The food additive fast green FCF inhibits α-synuclein aggregation, disassembles mature fibrils and protects against amyloid-induced neurotoxicity

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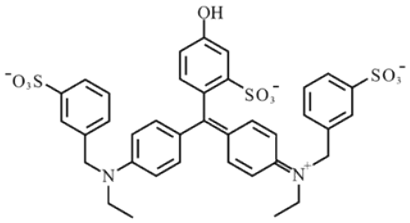
**A**




$C_{37}H_{34}N_2O_{10}S_3^{2-}$

**B**

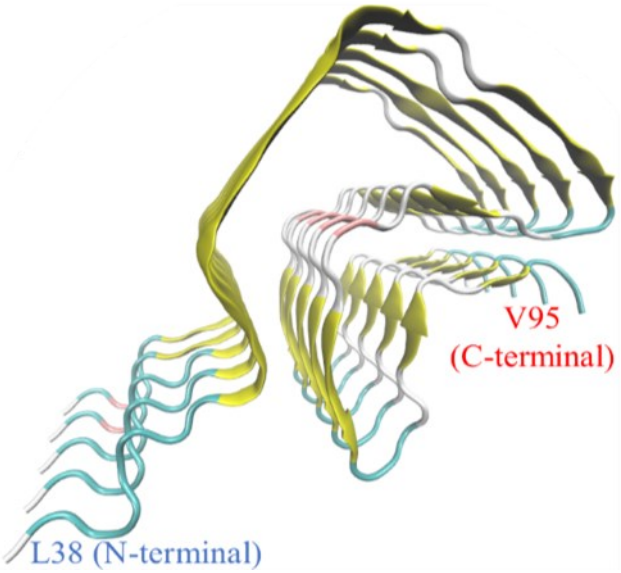



**Figure S1.** The structures of FGF (A) and α-syn pentamer (B).

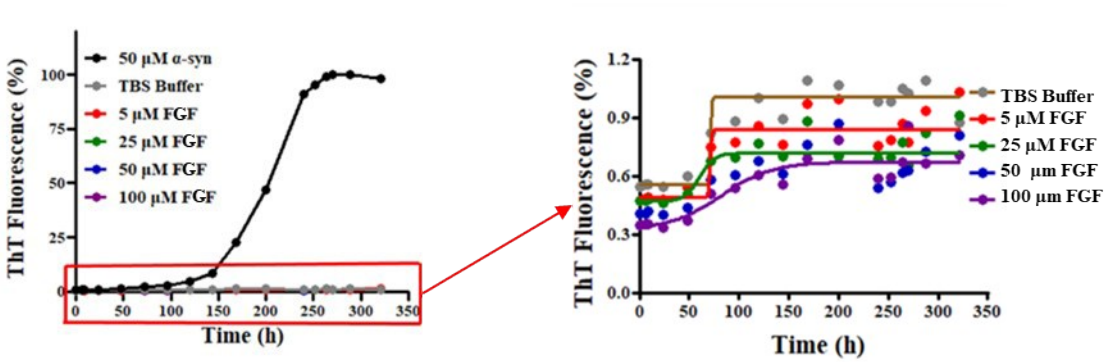



**Figure S2.** The effect of solid green itself on ThT fluorescence. The ThT signal was measured at an excitation wavelength of 440 nm and an emission wavelength of 480 nm. ThT without solid green or α-syn was set as a negative control, and ThT of 50 μM α-syn was set as a positive control.

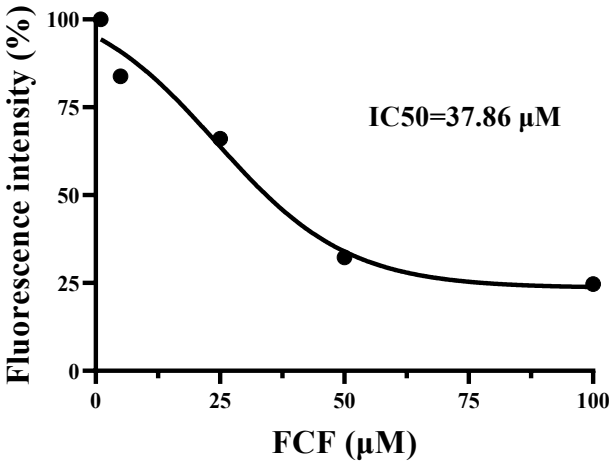



**Figure S3**. The inhibition of α-syn aggregation by FGF. Reaction progress curves in the presence of increasing FGF concentration.

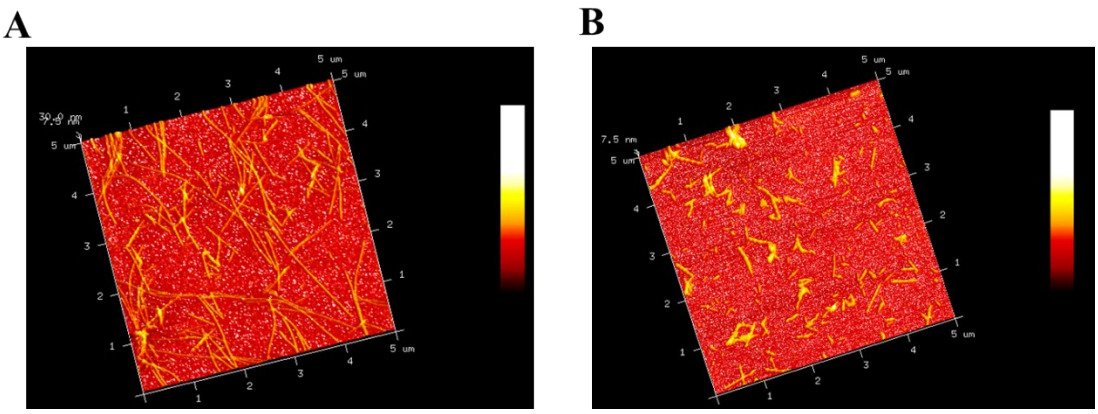



**Figure S4.** Three-dimensional AFM image of a recombinant α-syn polymer. Incubate without adding FGF (A) and 100 μM FGF (B).

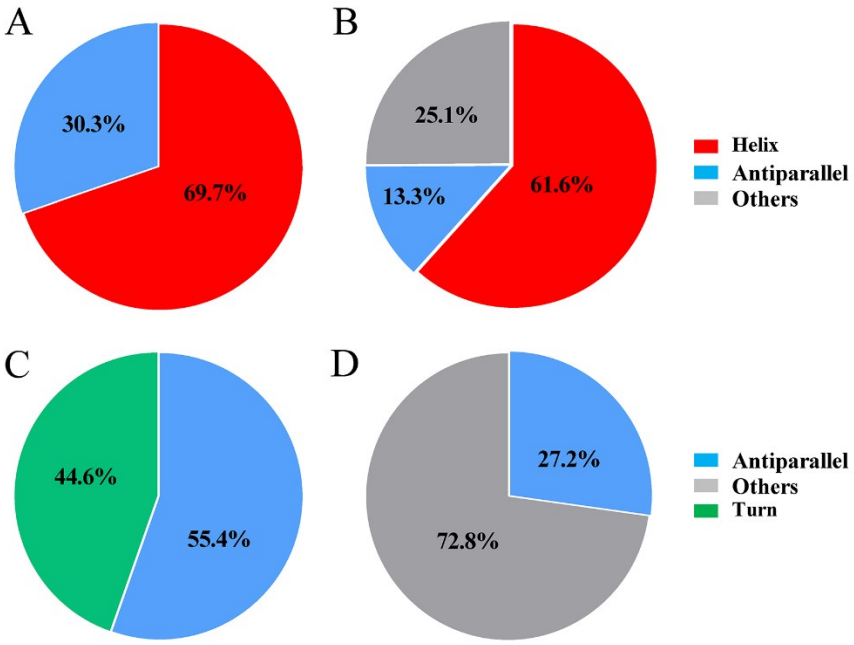



**Figure S5**. The ratios of secondary structure of initial α-syn (A and B) and α-syn incubated for 13 d (C and D) alone and with a 2-fold molar excess of FGF.

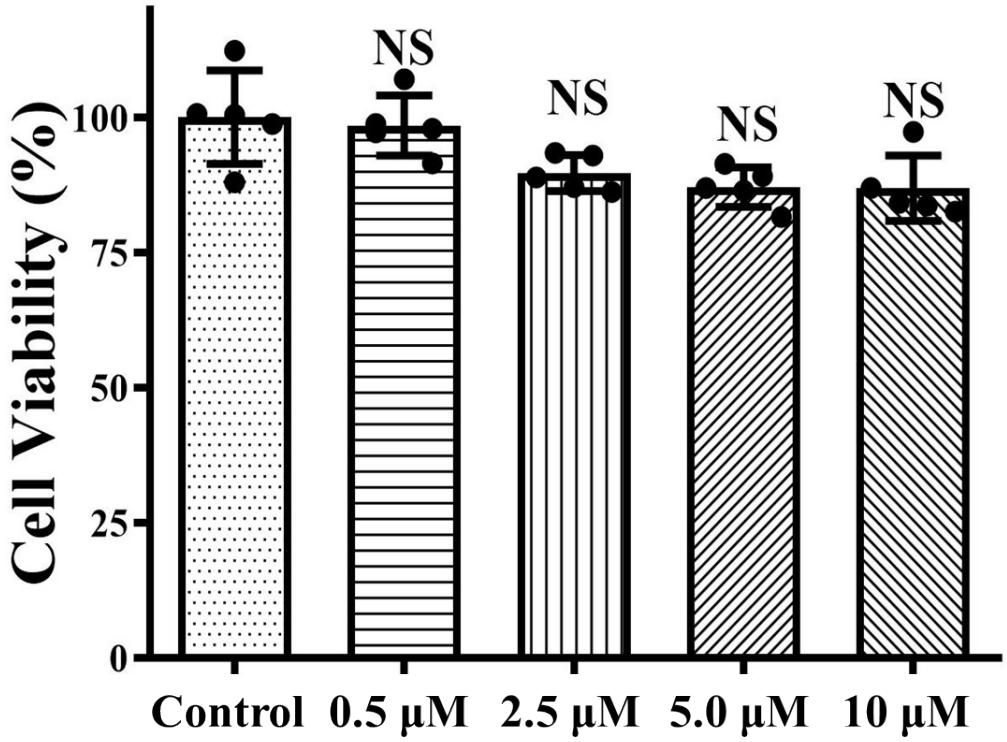



**Figure S6.** Cytotoxicity of FGF itself to PC12 cells. Values represent the mean ± SD (n = 6). NS, not significant.