Electronic Supplementary Material (ESI) for RSC Advances. This journal is © The Royal Society of Chemistry 2016

## **Electronic supplementary material (ESM):**

1 TO 20 30 37 KCNTATCAT QRLANFLVHS SNNFGAILSS TNVGSNTY-NH2

**Fig. S1** The primary sequence of IAPP with an amidated C-terminus and a disulfide bond between Cys2 and Cys7. Cys: cysteine.

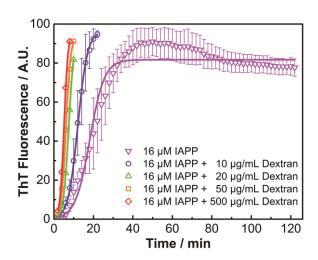
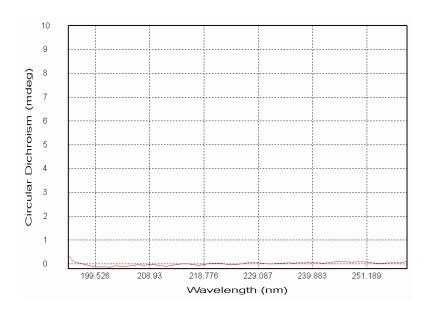
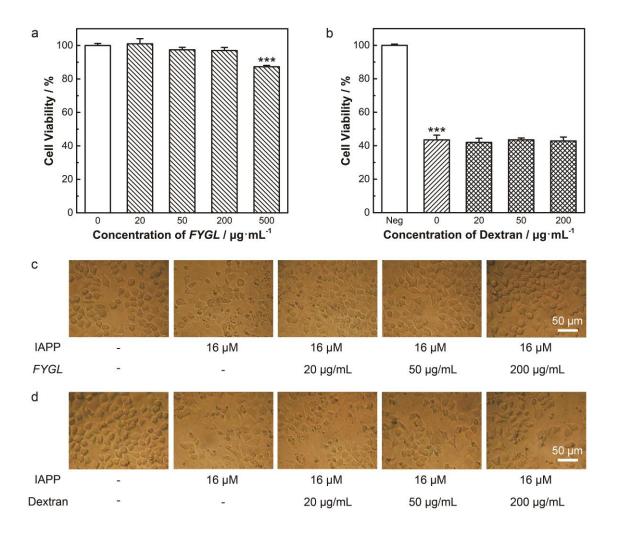


Fig. S2 Kinetics of 16  $\mu$ M IAPP fibrillation in the absence or presence of 10, 20, 50 and 500  $\mu$ g/mL dextran (molecular weight 70,000) detected by ThT assay.



**Fig. S3** CD spectrum of 50  $\mu$ g/mL *FYGL*. The signal of phosphate buffer was subtracted.



**Fig. S4** (a) Cell viability of RIN5fm cells incubated with 0, 20, 50, 200 and 500 μg/mL *FYGL* for 24 h. (b) Cell viability of RIN5fm cells incubated with 16 μM IAPP in the absence or presence of 20, 50 and 200 μg/mL dextran for 24 h. \*\*\* $P < 0.01 \ vs.$  negative control group. The morphology of RIN5fm cells incubated with IAPP in the absence or presence of 20, 50 or 200 μg/mL *FYGL* (c) or linear dextran (d) observed by inverted microscope.