

Supporting information

Self-assembled amphiphilic mixed α/β -tetrapeptoid nanostructures as promising drug delivery vehicles

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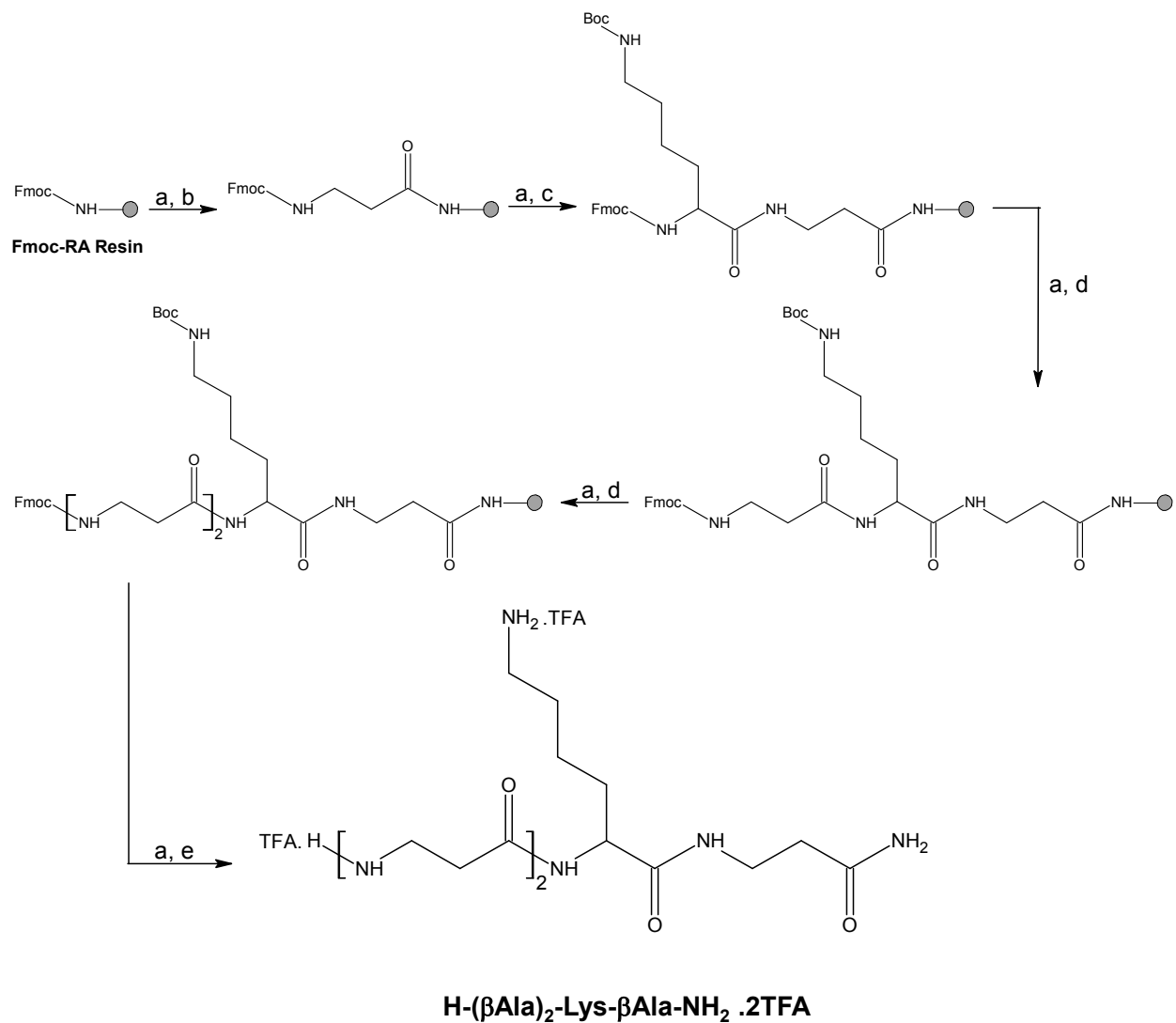


Fig. S1 Solid phase synthesis of tetrapeptoid, H-βAla-βAla-Lys-βAla-NH₂ .2TFA. Reagents and conditions: (a) 30% piperidine-DMF, 2 × 10 min; (b) Fmoc-βAlanine-OH (4 equiv), HOBt (4 equiv), HBTU (4 equiv), DIPEA (8 equiv), DMF, 3h; (c) Fmoc-Lysine(Boc)-OH (3 equiv), HBTU (3 equiv), DIPEA (6 equiv), DMF, 2h; (d) Fmoc-βAlanine-OH (3 equiv), HBTU (3 equiv), DIPEA (6 equiv), DMF, 2h; (e) TFA: thioanisole: water: phenol: ethanedithiol, 82.5: 5: 5: 5: 2.5 (v/v), 3h.

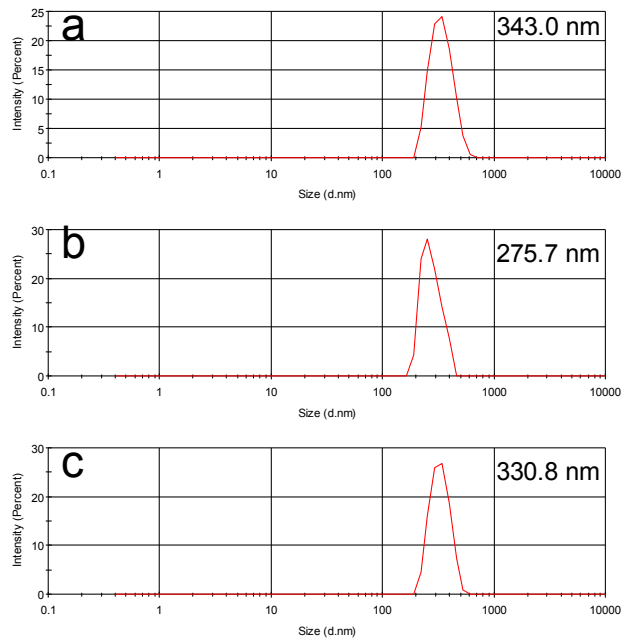


Fig. S2 DLS size distribution graph of tetrapeptoid nanoassemblies (a) unloaded assemblies, (b) assemblies loaded with aspirin and (c) assemblies loaded with L-Dopa.

Table S1. DLS dilution studies on tetrapeptoid nanoassemblies

S. No.	Sample	Size (nm) \pm SD	PDI \pm SD
1	Tetrapeptoid nanoassemblies (1.0 mg/ml)	343.0 \pm 28.89	0.307 \pm 0.054
2	Tetrapeptoid nanoassemblies (0.50 mg/ml)	342.8 \pm 31.80	0.250 \pm 0.085
3	Tetrapeptoid nanoassemblies (0.33 mg/ml)	317.7 \pm 41.46	0.269 \pm 0.048
4	Tetrapeptoid nanoassemblies (0.25 mg/ml)	334.8 \pm 42.28	0.352 \pm 0.016

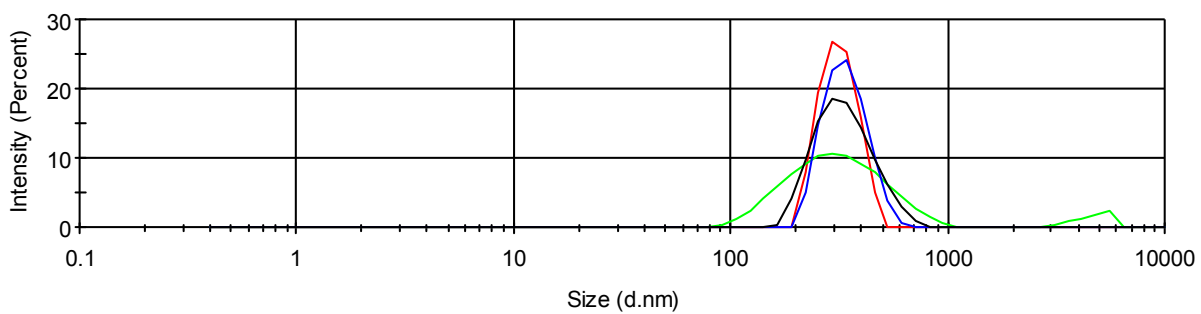


Fig. S3 DLS size distribution graph depicting stability of tetrapeptoid nanoassemblies on dilution from 1 mg/ml to 0.25 mg/ml (blue, 1 mg/ml; black, 0.5 mg/ml; red, 0.33 mg/ml; green, 0.25 mg/ml).

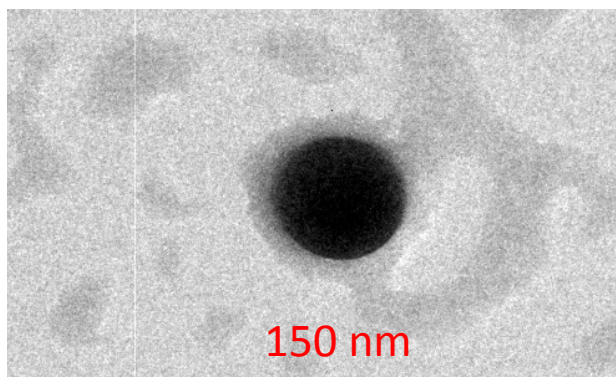


Fig. S4 TEM micrograph of tetrapeptoid nanostructure depicting stability in the dilute condition, 0.25 mg/ml (scale bar 100 nm).