**Curcumin-Loaded PLGA-PEG Nanoparticles conjugated with B6 Peptide for Potential Use in Alzheimer’s disease**

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**Table. S1 M**olecular weight of PLGA-PEG, acrylated PLGA-PEG, PLGA-PEG-B6 and PLGA-PEG-B6/Cur determined by GPC analysis.

|  |  |  |  |
| --- | --- | --- | --- |
| Samples | Mn | Mw | Mw/Mn |
| PLGA-PEG | 12000 | 25000 | 2.08 |
| acrylated PLGA-PEG | 12800 | 25600 | 2.00 |
| PLGA-PEG-B6 | 13200 | 26000 | 1.96 |
| PLGA-PEG-B6/Cur | 13600 | 26600 | 1.95 |

**Table. S2** Clotting kinetics parameters of human whole blood mixed with aqueous PLGA-PEG-B6 solutions at different concentrations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| samples | R (min) | K (min) | α (deg) | MA (mm) |
| Normal range | 5-10 | 1-3 | 53-72 | 50-70 |
| PBS control | 5.1  | 3.0 | 51.9 | 53.5 |
| 0.01 mg/mL | 5.0 | 3.2 | 52.2 | 53.0 |
| 0.05 mg/mL | 5.0 |  4.8↑ |  40.8↓ | 51.4 |
| 0.1 mg/mL | 6.1 |  5.6↑ |  37.1↓ |  46.2↓ |

**Figure legends:**

**Fig. S1** Particle sizes of PLGA-PEG-B6 and PLGA-PEG-B6/Cur. The mean diameter of PLGA-PEG-B6 particles were less than 100 nm and curcumin encapsulation slightly increase the particle size.

**Fig. S2** Release profiles of curcumin from PLGA-PEG-B6/Cur micelles. The cumulative release of curcumin initially shifted to 29.60% in the first hour, followed by a sustained release for a period of 72 h. Each point represents mean ± SD.

**Fig. S3** The HPLC of B6 peptide

**Fig. S4** The Maldi Toff MS of B6 peptide



**Fig. S1**.



**Fig. S2**.



**Fig. S3**



**Fig. S4**