Supplementary Information

Highly Efficient Soluble Expression, Purification and Characterization of Recombinant Aβ42 from Escherichia coli

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**Table S1.** The nucleotide sequence of (NANP)\textsubscript{3}-TEV-Aβ\texttextsubscript{42} and primers used in amplification PCR

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| (NANP)\textsubscript{3}-TEV-Aβ\textsubscript{42} | AATGCCAATCCGAATGCCAACCGAACCGAACCACGCCGAAA
|               | CCTGTACTTCCAGGATGCCGAGGCCATGATAGGGCTA
|               | TGAGGTGCACCACACCAGAAAACCTGGTGTTTCTTTGCGGAGGATGT
|               | GGCCAGAAACAAAGGCGCCATTATTGGCCTGATGTTGGGTTG
|               | GCGTGGTGGATTGCC                                                                 |
| EcoRI-Aβ42-F  | CGGAATTGCAATGCCAATCCGAATGCCAATGCCA |
| HindIII-Aβ42-R| CCAAGCTTTTAGGCAATCACCACGCC |
Fig S1. SDS-PAGE analysis of the soluble and insoluble fraction. BL21-MBP-Aβ42 and BL21 cells were sonicated and divided into pellet and supernatant fraction after induction by 0.5 mM IPTG. M: protein marker; 1: BL21 soluble fraction; 2: BL21-MBP-Aβ42 soluble fraction; 3: BL21 cells debris fraction; 4: BL21-MBP-Aβ42 cells debris fraction.
Fig S2. Chromatographic profile of the recombinant Aβ42 purified by size-exclusion chromatography on a Superdex 200 Increase column.
**Fig S3.** AFM images of recombinant Aβ42 aggregates. A: 3D images of Aβ42 aggregates after incubation for 0 and 3 days. B: AFM adhesion image of Aβ42 fibrils after 3 days’ incubation. C: Adhesion profile of the dashed white line marked the position along the fibril was analyzed.