Supporting Information

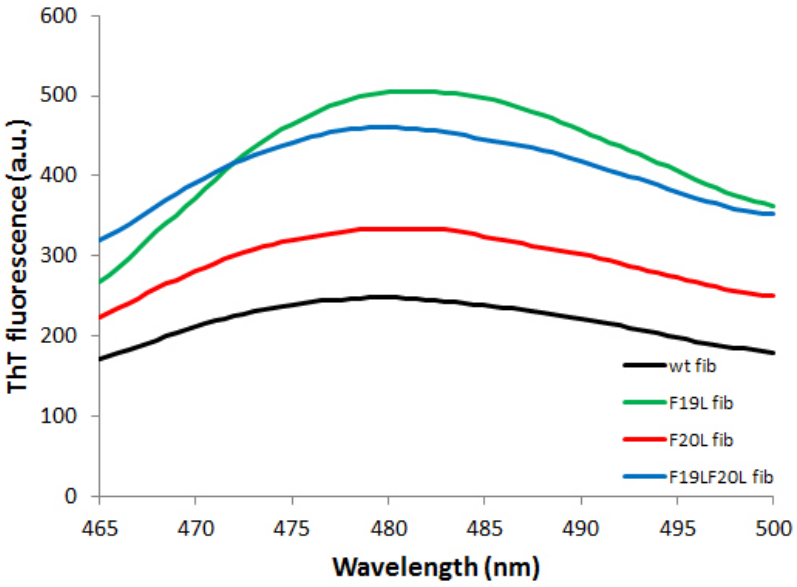

Figure SI 1. ThT fluorescence spectra of the fibrils formed from wt (black), F19L (green), F20L (red) and F19LF20L (blue). The maximum intensity is observed at emission wavelengths between 480 and 484 nm for all the fibrils.

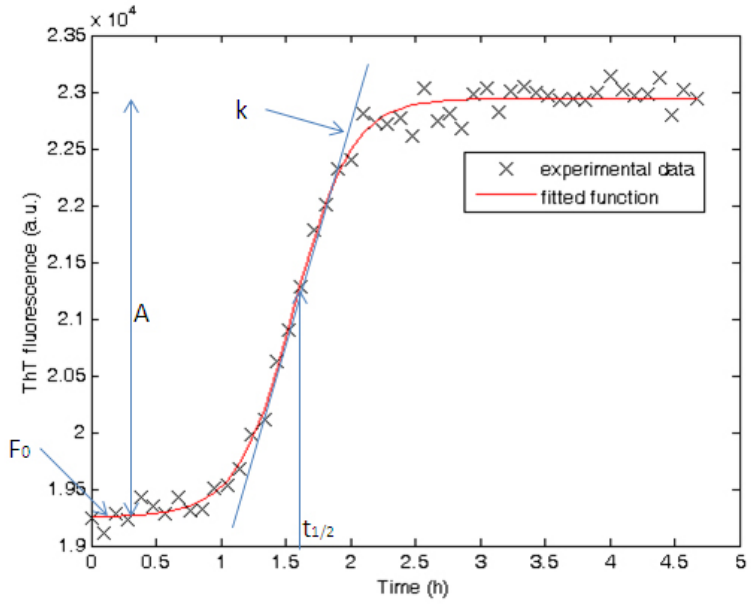

Figure SI 2. Experimental data from a kinetic experiment (black crosses) and the fitted sigmoidal function (red solid line) to that data.

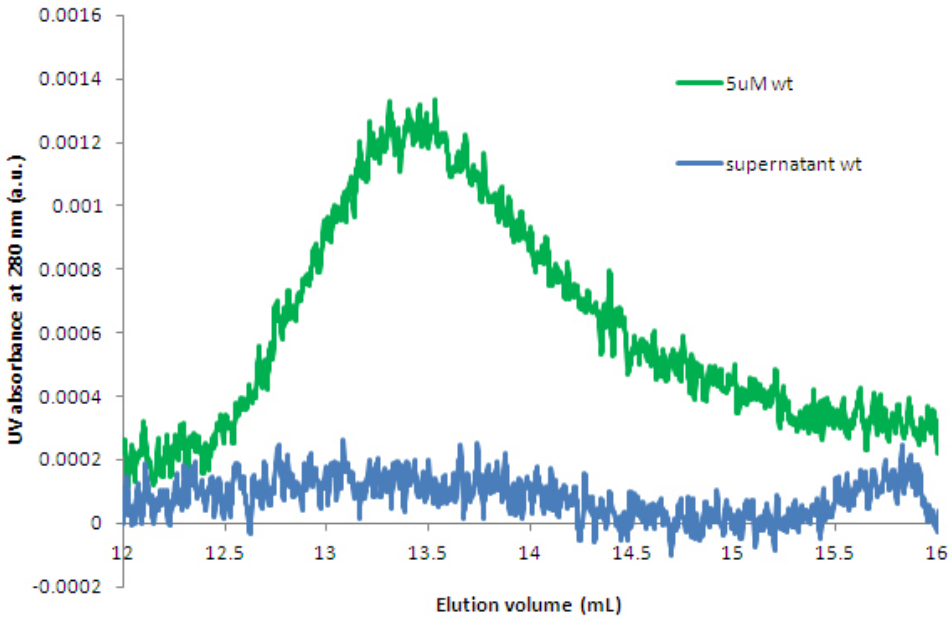

Figure SI 3. Gel filtration experiment on a Superdex 75 column for 5 µM wild type (green) and the supernatant over fibrils formed from 5 µM wild type incubated over night (blue). The peak for the green curve corresponds to the typical elution volume for monomers. In the supernatant sample this peak is not detected.

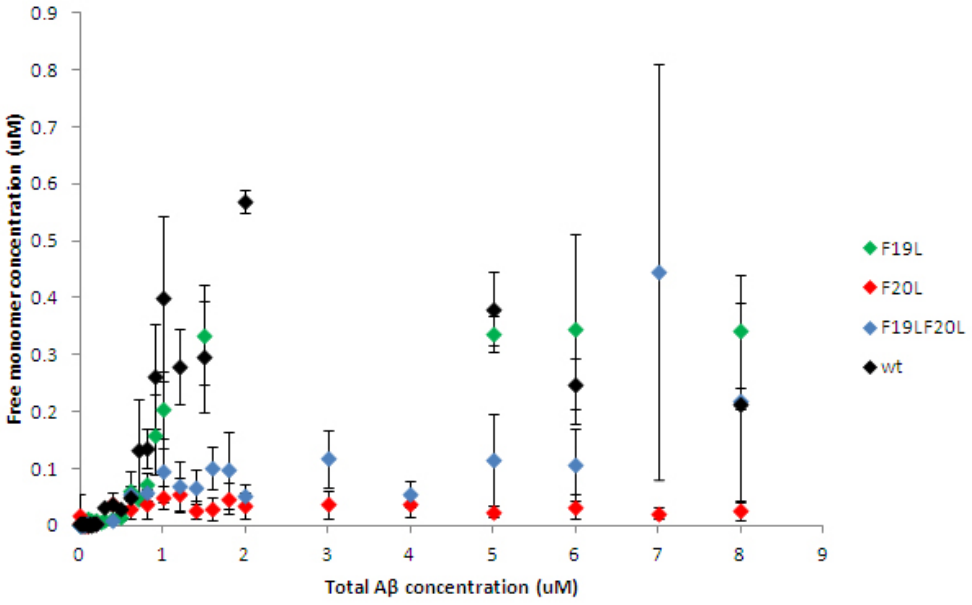

Figure SI 4. ELISA data for F19L (green), F20L (red) and F19LF20L (blue). All three mutants go through a phase transition and above the transition point the free monomer concentration decreases or stays constant.

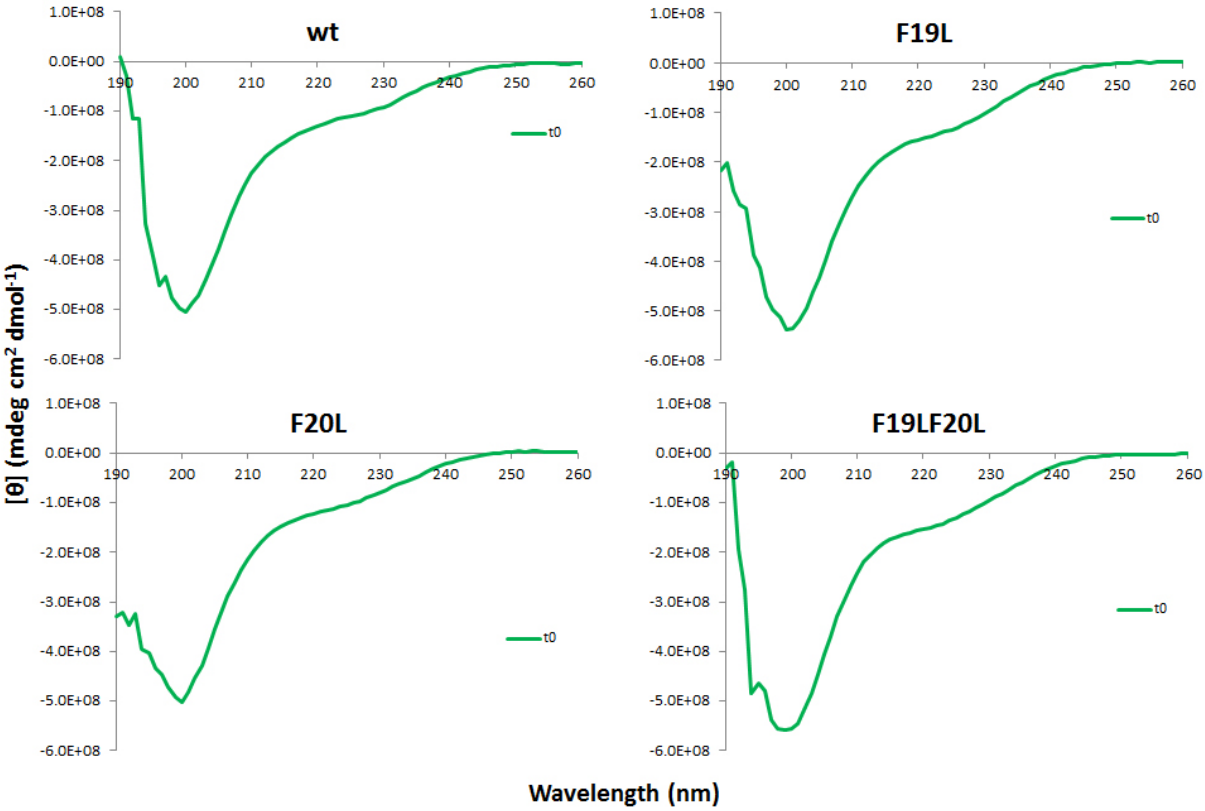

Figure SI 5. Same data as in figure 4 but with y-axis expansion and the only spectra shown are the ones for the start point.

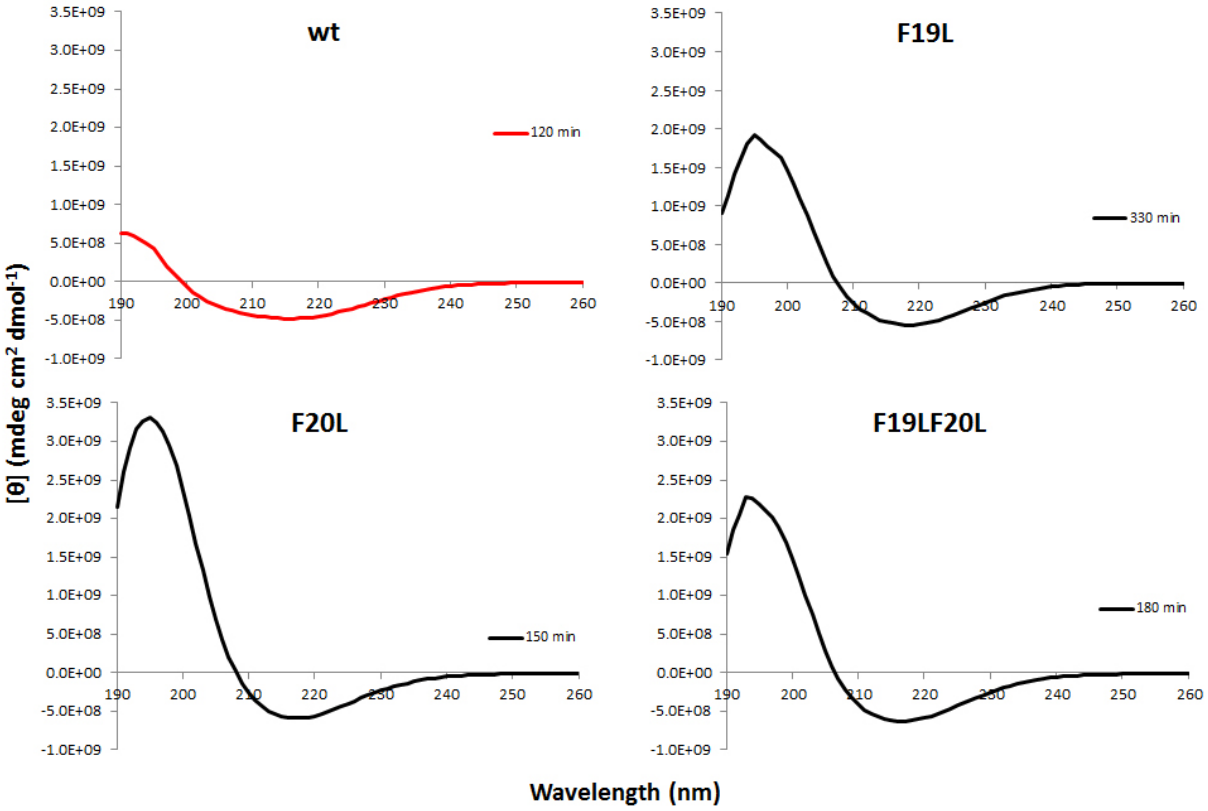

Figure SI 6. Same data as in figure 4 but with y-axis expansion and the only spectra shown are the ones for the end point.

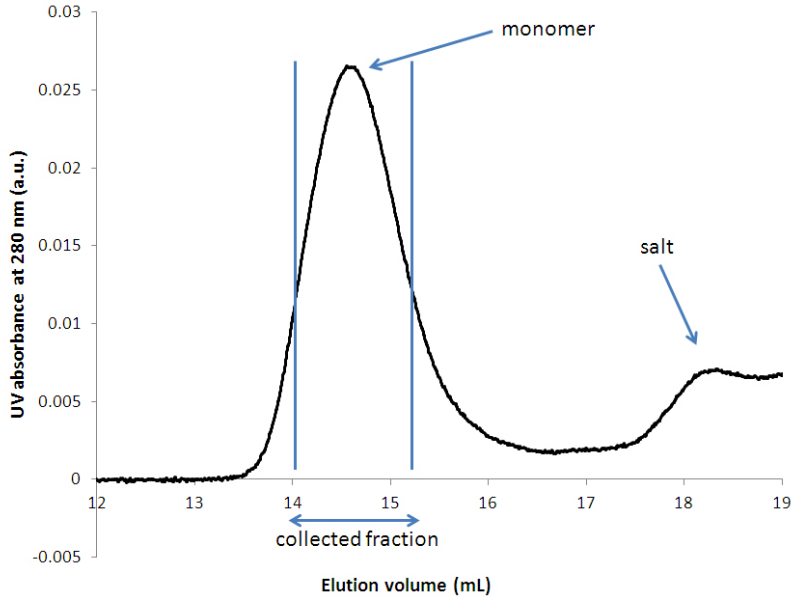

Figure SI 7. Isolation of the monomer by size exclusion chromatography (SEC) on a Superdex 75 10/300 GL column using a fast liquid protein chromatography (FPLC) system. The first peak is the monomer and only a narrow fraction is collected. The second peak contains different salts (mainly Tris and EDTA) from the previous purification step.

Table SI 1. The average width and the standard deviation of the fibrils. This is a measurement on 15 individual fibrils.

	wt	**F19L**	**F20L**	**F19LF20L**
Average width (nm)	6.3	6.1	6.4	6.2
Std (nm)	± 1.1	± 0.7	± 0.7	± 0.9