Supplementary Figure 1. Western blot analysis of HD53Q aggregation when incubated in the presence and absence of antibodies. MW8 was used to detect aggregated HD53Q that remained in the well. At 0 h, no aggregates were observed. After 8 h of incubation, aggregates were observed in control HD53Q alone. Only MW7and 3B5H10 completely prevented HD53Q aggregation.

Supplementary Movie 1. Time lapse *in situ* AFM images demonstrating the stability of HD53Q fibrils under experimental conditions. Samples of HD53Q were incubated for 6–8 h after removal of the GST moiety to form a large population of fibrils. These fibrils were deposited on mica and imaged using *in situ* AFM, which allows for the tracking of the fate of individual fibrils as a function of time. Extra neat buffer was injected into the fluid cell, and the HD53Q fibrils remained stable under continuous imaging up to 376 min.

Supplementary Movie 2. Time lapse *in situ* AFM images demonstrating the disaggregation of HD53Q fibrils treated with 3B5H10. Samples of HD53Q were incubated for 6–8 h after removal of the GST moiety to form a large population of fibrils. These fibrils were deposited on mica and imaged using *in situ* AFM, which allows for the tracking of the fate of individual fibrils as a function of time. These fibrils were treated with 3B5H10, and the HD53Q fibrils appear to disaggregate and shorten over the time course of the experiment.