

Figure 4 – figure supplement 4

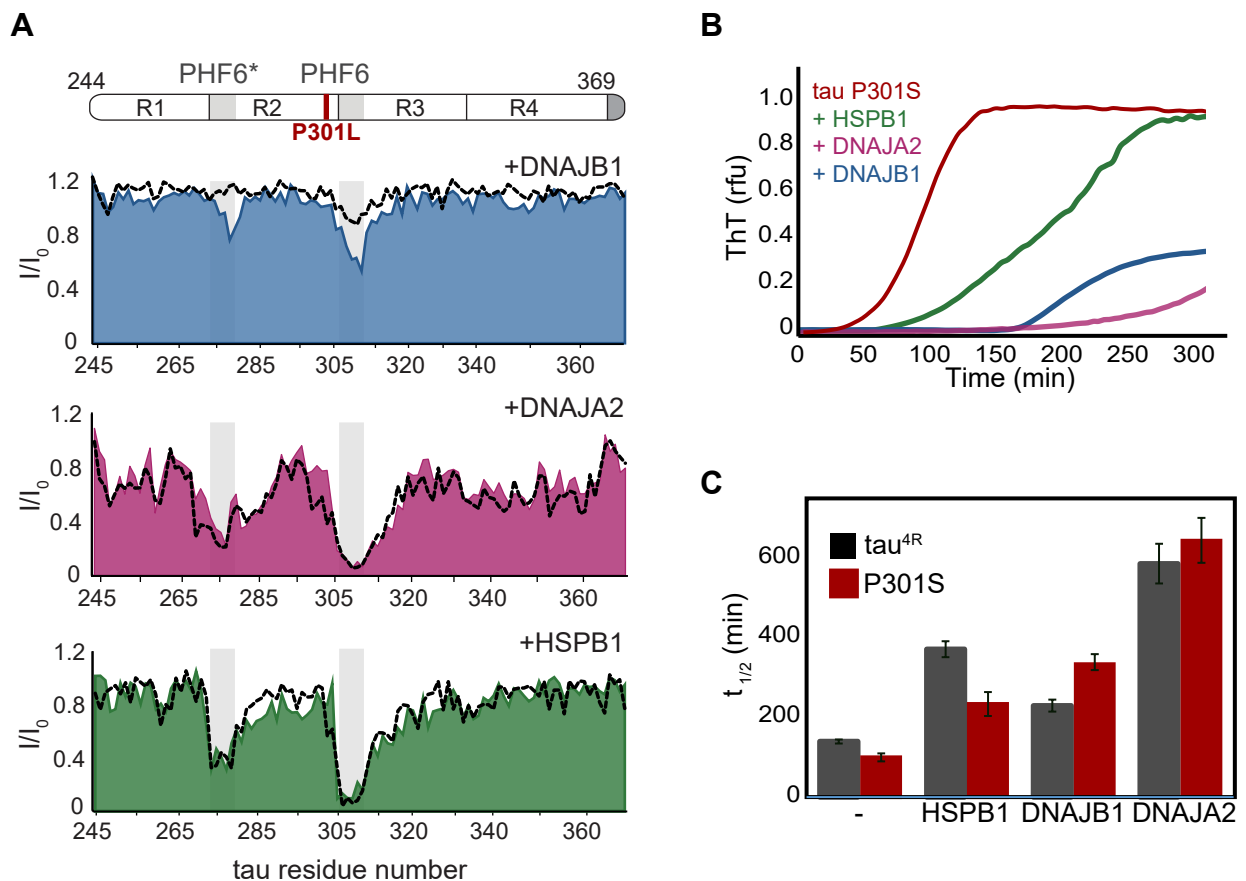


Figure 4 – figure supplement 4

Interaction of chaperones with tauopathy associated tau mutants. (A) Residue-resolved NMR signal attenuation (I/I_0) of tau P301L mutant upon addition of two equivalents of DNAJB1 (blue), DNAJA2 (purple), or HSPB1 (green) chaperones. The position of the mutation between repeats 1 and 2 is indicated in red on the domain organization (top). Grey boxes represent the positions of the tau PHF6* and PHF6 aggregation-prone motifs. Dashed lines show the intensity changes for wild-type tau upon interaction with same chaperones. **(B)** ThT-based aggregation assay of 10 μ M tau P301S variant alone (dark red), and in the presence of 5 μ M HSPB1 (green), DNAJA2 (purple), or DNAJB1 (blue) chaperones. **(C)** Comparison of aggregation reaction half-times of tau^{4R} (grey bars) and P301S tau (dark red bars) variants alone, and in the presence of chaperones. HSPB1 chaperone shows a significant reduction in its aggregation-prevention activity towards the P301S mutant tau compared to wild-type protein. In contrast, DNAJB1 is more efficient in preventing tau P301S aggregation than that of wild-type tau^{4R}.