

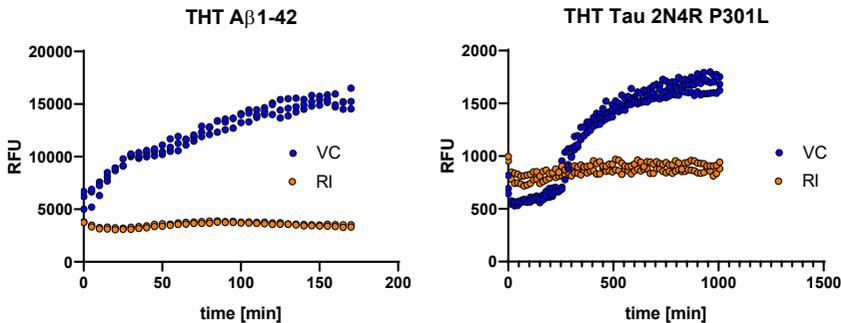
A β and Tau Aggregation

The pathological aggregation of amyloid- β peptides (A β) and Tau are the major hallmarks in AD patients' brains. The development of compounds interfering with aggregation and thus able to rescue neurodegeneration is indispensable.

At QPS Austria the cell-free aggregation of recombinant proteins in presence and absence of anti-aggregatory compounds can be monitored with 2 different approaches:

1) Thioflavin T (ThT) based aggregation assay

The formation of A β and Tau aggregates is monitored by fluorescence resulting from binding of Thioflavin T (ThT) to the aggregates. Upon binding to aggregates, ThT exhibits a red shift in fluorescence. The assay monitors aggregate formation over time. VC: vehicle control; RI: reaction item; RFU: relative fluorescence unit.



2) A4 assay for A β oligomer detection

This assay is specific for A β oligomers and is based on affinity separation of monomeric (flow through) and aggregated A β (attached). Attached oligomers are then monomerized and eluted for quantification with an immunosorbent assay.

This unique assay can also be used to quantify A β oligomers not only in the context of cell-free aggregation studies, but also in various samples obtained from • cell cultures, • *in vivo* studies or

• clinical trials.

