**Supplementary Material**

**Supplementary Table 1** presents data on interference test of MEDI1814 in plasma from non-human primate (NHP) (*Macaca fasicularis*). Samples were spiked with different concentrations of MEDI1814 and Aβ42 according to predictive modelling.



**Supplementary Table 2** presents data on interference test of MEDI1814 in cerebrospinal fluid from non-human primate (*Macaca fasicularis*) using the in-house developed total Aβ42 assay. Samples were spiked with different concentrations of MEDI1814 and Aβ42 according to predictive modelling.



**Supplementary Table 3.** Based on the performance of the calibration standard samples and using our acceptance criteria the LLOQ for the free and total Aβ1-42 in CSF and total Aβ1-42 in plasma was set to 16 pg/mL (n=2 plates) and 8 pg/mL (n=6 plates) using two different ELISA lots.



**Supplementary Table 4** present buffer quality control (QC) data from the study analysis of free Aβ42 in NHP using the drug tolerant assays. The QC samples were analyzed at both ends of the ELISA plates and demonstrate absence of drift (< 10% deviation at the end of the plate).



**Supplementary Table 5** presents buffer quality control (QC) data from the study analysis of total CSF Aβ42 in NHP using the drug tolerant assays. The samples were analyzed at either end of the ELISA plates and demonstrate absence of drift (< 10% deviation at the end of the plate) over the plates.



**Supplementary Table 6** present buffer quality control (QC) data from the study analysis of Aβ40 in NHP using the drug tolerant assays. The samples were analyzed at either end one of the ELISA plates and demonstrate absence of drift (< 10% deviation at the end of the plate) over the plates.



**Supplementary Table 7** presents buffer quality control (QC) data from the study analysis of total plasma Aβ42 in NHP using the drug tolerant assays. The samples analyzed at 19 different ELISA plates demonstrating a good between plate precision (CV ≤10%).

