

Electronic supplementary information

Additional MS parameters

CID fragmentation was performed in the LTQ with a target value of 10 000 ions. To optimize mass accuracy of precursor ions lock masses for recalibration were used. Ion selection threshold was 500 ions and for the selected sequenced ions dynamic exclusion was applied for 120s. The following MS conditions were additionally used: spray voltage 1.9–2.1 kV, no sheath and auxiliary gas flow, ion transfer tube temperature 190–200°C and normalized collision energy 35%. Activation $q=0.25$ and an activation time of 30ms were applied for MS/MS acquisitions.

Figure legend

Fig. S1: Technical and sample preparation variability in mouse plasma and brain.

A-C: Plasma and brain technical replicate pairs: A. RT variability; B. Overlap (%) of identified ^{14}N and ^{15}N labelled peptides and protein groups; C. Quantification variability of $\log_2(^{15}\text{N}/^{14}\text{N})$ ratios.

D-F: Plasma and brain sample preparation replicate pairs: D. RT variability; E. Overlap (%) of identified ^{14}N and ^{15}N labelled peptides and protein groups; F. Quantification variability of $\log_2(^{15}\text{N}/^{14}\text{N})$ ratios. Only $\log_2(^{15}\text{N}/^{14}\text{N})$ ratios ranging from -2 to +2 were considered for calculating quantification variability.

Fig. S2: Distribution of $\log_2(^{15}\text{N}/^{14}\text{N})$ ratios for all quantified proteins in plasma and brain
A. technical replicates B. sample preparation replicates.