

AD / Tauopathy



TMHT Transgenic Mouse Model

The TMHT (Thy1 Mutated Human Tau) mouse was developed in-house and is exclusively available at Scantox. TMHT mice overexpress the human TAU441 with two mutations, V337M and R406W under control of the neuron- specific murine Thy1 promoter.

- Cognitive deficits in the Morris water maze starting at 5 months of age
- · No motor deficits
- Tau phosphorylation at Thr181, Ser202, Thr231/Ser235, Ser396/Ser404

Figure 1:
Morris water maze escape latencies of 5 and 8 month old TMHT mice. Mean ± SEM; n = 19 - 54; Two-way ANOVA with Bonferroni's post hoc test; *p<0.05, ***p<0.01.

Figure 2:

Quantitative analysis of soluble and insoluble Tau and ptau expression levels

in the hippocampus of 3 to

13 months old TMHT mice

A: Soluble total tau levels.

compared to non-trans-

genic animals by MSD

immunosorbent assay.

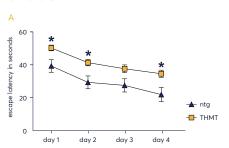
B: Soluble ptau Thr231

SEM. Two-way ANOVA

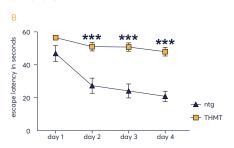
levels. n = 4 - 13. Mean \pm

with Bonferroni's post hootest. ***p< 0.001

5 months

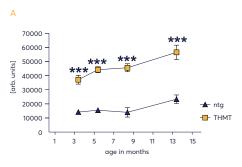


8 months



Figur

soluble total tau



soluble ptau

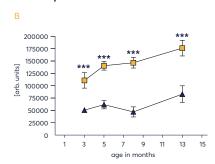
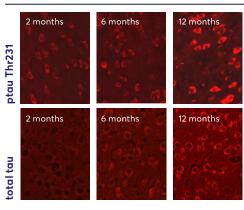


Figure 3: Immuofluorescent of total tau (HT7) and ptau Thr231 (AT180) labeling in the amygdala of 2, 6 and 12 months old TMHT mice.

Flunkert et al. Elevated Levels of Soluble Total and Hyperphosphorylated Tau Result in Early Behavioral Deficits and Distinct Changes in Brain Pathology in a New Tau Transgenic Mouse Model. Neurodegener Dis. 2012 Jul 10.



TMHT mice are cryo-preserved and will be recovered upon request.

Scantox

Discovery

Important note

Representative data are shown throughout this document. However, biological variability might cause deviations from shown data.

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