



TMHT Transgenic Mouse Model

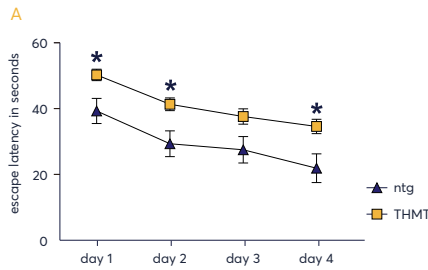
The TMHT (Thy1 Mutated Human Tau) mouse was developed in-house and is exclusively available at Scantox. TMHT mice overexpress the human TAU441 with two mutations, V337M and R406W under control of the neuron- specific murine Thy1 promoter.

- 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 \pm SEM; n = 19 - 54; Two-way ANOVA with Bonferroni's *post hoc* test; * $p < 0.05$, *** $p < 0.01$.

Figure 1

5 months



8 months

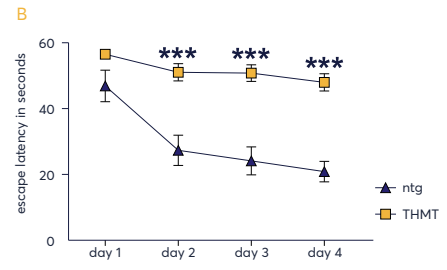
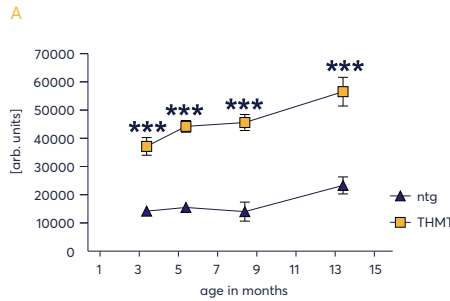


Figure 2: Quantitative analysis of soluble and insoluble Tau and ptau expression levels in the hippocampus of 3 to 13 months old TMHT mice compared to non-transgenic animals by MSD immunosorbent assay. **A:** Soluble total tau levels. **B:** Soluble ptau Thr231 levels. n = 4 - 13. Mean \pm SEM. Two-way ANOVA with Bonferroni's *post hoc* test. *** $p < 0.001$

Figure 2

soluble total tau



soluble ptau

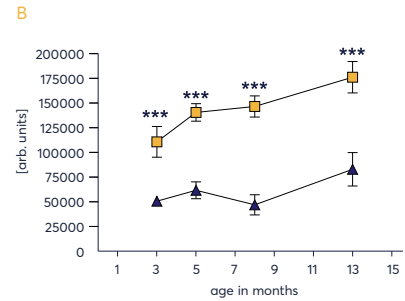
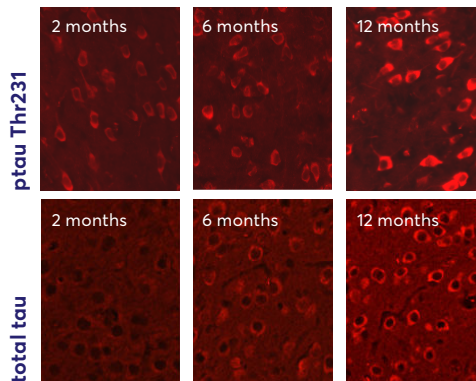


Figure 3: Immunofluorescent of total tau (HT7) and ptau Thr231 (AT180) labeling in the amygdala of 2, 6 and 12 months old TMHT mice.



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

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.

