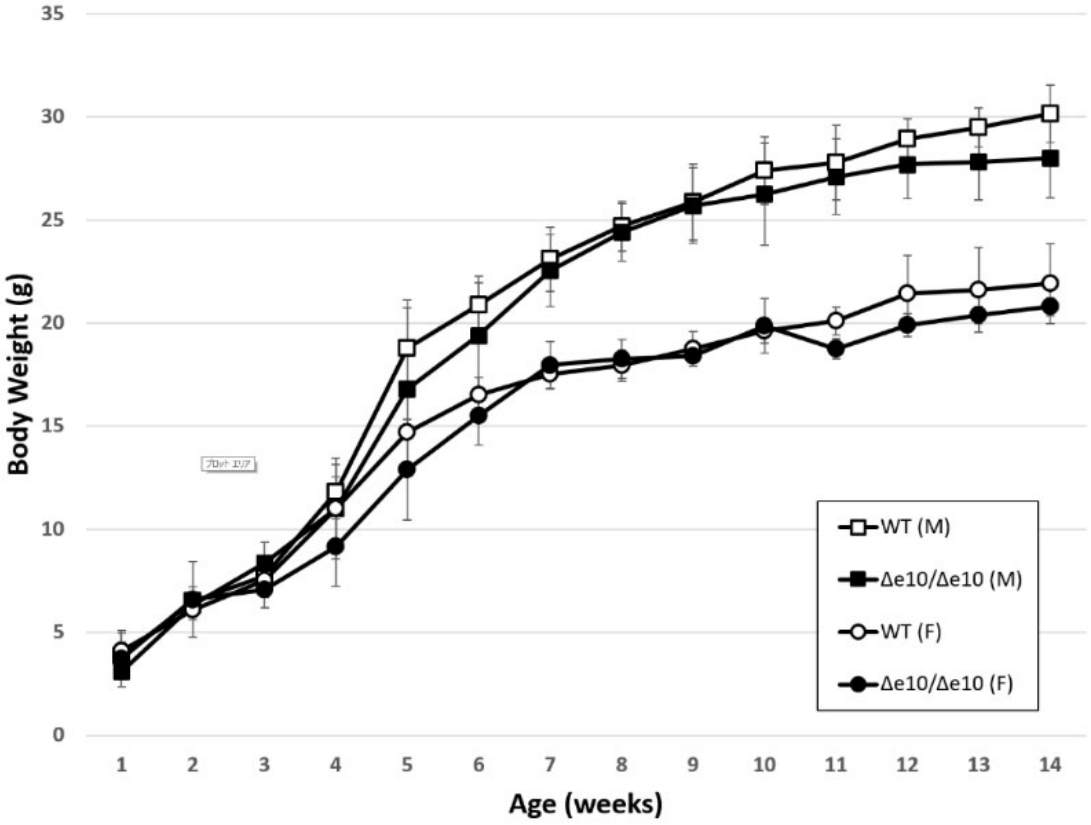
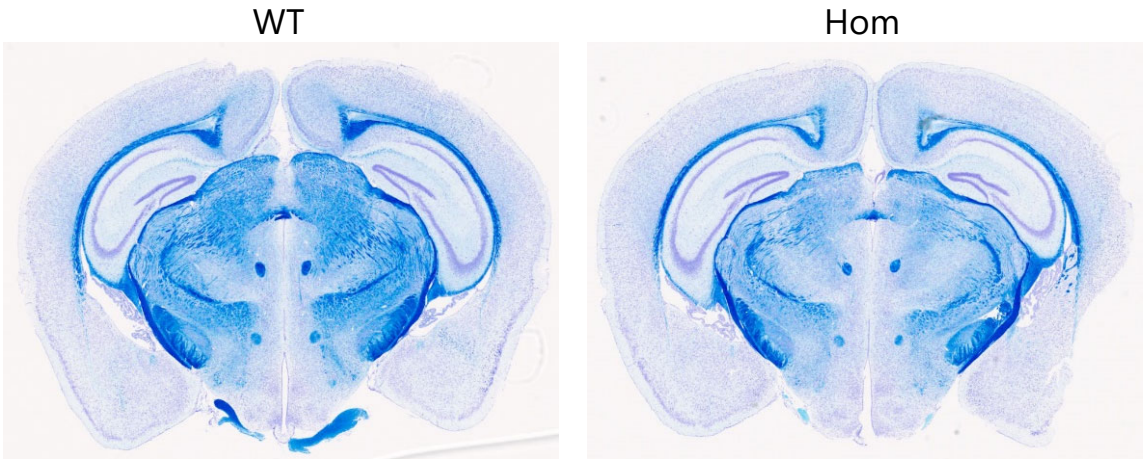
Figure S1 Body weight of WT and *Tenm4*$^{\Delta E10/\Delta E10}$ mice



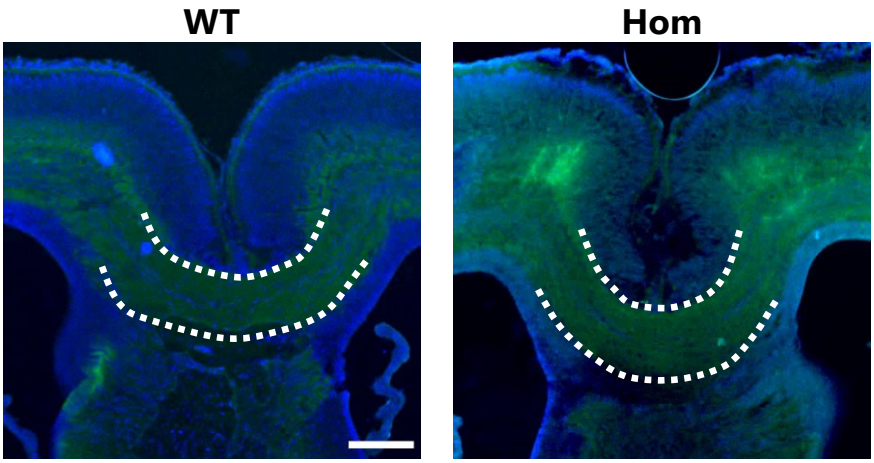
Monitoring of the body weight until 14 weeks in male and female WT and *Tenm4*$^{\Delta E10/\Delta E10}$ mice. Open or filled squares indicate the average weight of WT (n=4) or *Tenm4*$^{\Delta E10/\Delta E10}$ (n=4) males (Welch's t-test: p=0.180 at 14 weeks), while open or filled circles indicate the average weight of WT (n=5) or *Tenm4*$^{\Delta E10/\Delta E10}$ (n=4) females (Welch's t-test: p=0.236 at 14 weeks). No significant difference was observed between the WT and homozygous mice of the same gender.

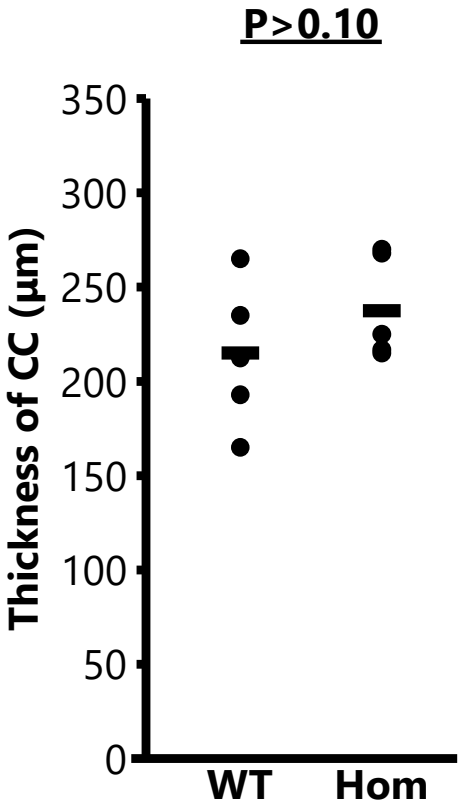
Figure S2 Coronal sections of WT and *Tenm4*$^{\Delta E10/\Delta E10}$ mice



Klüver–Barrera staining of coronal sections of the whole brain of WT and homozygous mice at approximately eight weeks. No major structural abnormalities were identified.

Figure S3 Corpus callosum of mice at E18.5





Thickness of the corpus callosum of wild-type (n=4) and Tenm4ΔE10/ΔE10 (n=5) mice at E18.5. No significant differences were observed (P > 0.10, Mann–Whitney U test). Scale Bar: 200μm

Table S1 Primer sets for amplification of three TENM4 fragments

Target of amplification	Forward	Reverse
Exon 9	aagctTGTCTCTGTGTGCCCTGTTC	ggatcCACAGCATTCTAGGCAGCAG
Exon 10	tcgcgaCCTATCCCCCGATCCATAGT	TTGATGAGCTCCAAGCACAG
Exon 11	TGGATCCCAAAATGGTTTCT	TGGATCCCAAAATGGTTTCT

Capital letters represent specific sequences, and lowercase letters indicate restriction enzyme sites being introduced.

Table S2 Primer sets for RT-PCR to analyze splicing of exon 10

Target of amplification	Forward	Reverse
For human	CAGCTACGCTCGTCATCCTG	TCTGCCATAAATGCCAACCA
For mouse	CTTCTGCACCACATCACCAG	TTCAGATGCACAGGATGGTC

Table S3 Primer sets for real-time PCR to analyze mouse cerebral cortex

Target of amplification	Forward	Reverse
Tenm4 WT	AACCCTGTGGTCTCTCCATCC	CAGCCAGCGATGACGATTT
Tenm4 delEx10	TGCTCGCATACTTTGTGGGA	GGGTGGTCTATGAACACCTGAGA
Tfrc	AATGCCGACAATAACATGAAGG	CACGCTTACAATAGCCCAGGTAG
Pgk1	TCCGAGCCTCACTGTCCAA	GGCAGATTCACACCCACCA

Table S4 Primer sets for real-time PCR to analyze primary cultured mouse oligodendrocytes

Target of amplification	Forward	Reverse
Mbp	GGCCTCAGAGGACAGTGATG	TCTGCTGTGTGCTTGGAGTC
Plp1	GTTCCAGAGGCCAACATCAAGCTC	AGCCATACAACAGTCAGGGCATAG
Tenm4 WT	AACCCTGTGGTCTCTCCATCC	CAGCCAGCGATGACGATTT
Tenm4 delEx10	TGCTCGCATACTTTGTGGGA	GGGTGGTCTATGAACACCTGAGA
Gapdh	GTGTGAACCACGAGAAATA	GTTGTCATGGATGACCTT

Table S5 Sequences of crRNA and ssODN for *i*-GONAD

Name	Sequence
crRNA	CAAAGGAGCCGCAGAAGGCA
ssODN	TAGAGACCCCTGACAGGAAAGGCAAAGGAGCCGCAGAAGGCAGGGTTGCTGCGTTGT CCGTGTTGTGAGTCCTCTGTGTC

Table S6 electroporation parameters

Poring pulse					
Voltage (V)	Pulse length (ms)	Pulse interval (ms)	Number of pulse	Decay rate (%)	Pulse orientation
50.0	5.0	50.0	3	10.0	+

Transfer pulse					
Voltage (V)	Pulse length (ms)	Pulse interval (ms)	Number of pulse	Decay rate (%)	Pulse orientation
10.0	50.0	10.0	3	40.0	+/-

Table S7 Primer sets for genomic PCR confirming the genomic rearrangement

Forward	Reverse
TGTATGAGATCACGGAGGAC	TGGAGGATGGAAGAAGCATG