

Table S1. Expression of *Ubtf* and rRNA by Nestin-Cre Mice

	<i>Ubtf</i> ^{+/+} Liver	Nestin-Cre Liver	<i>Ubtf</i> ^{+/+} Hippocampus	Nestin-Cre Hippocampus
<i>Ubtf</i> Total	1.01±0.02	1.18±0.04*	2.14±0.03	1.35±0.14*
<i>Ubtf1</i>	1.01±0.03	1.14±0.05	3.53±0.23	2.54±0.14*
18S rRNA	1.01±0.02	1.13±0.06	0.57±0.01	0.41±0.03*
28S rRNA	1.01±0.01	1.34±0.05*	0.79±0.05	0.56±0.02*
45S rRNA	1.01±0.02	1.38±0.04*	1.46±0.06	0.97±0.04*

**P* < 0.05

Table S2. *Ubtf* Knockdown in Adult Mice

	<i>Ubtf</i> ^{+/+} (n=5)	<i>Ubtf</i> ^{f/f} CreERT2 (n=2) +Tamoxifen	<i>Ubtf</i> ^{f/f} CreERT2 (n=2) -Tamoxifen
Weight (g) before injection	27.0 ± 0.8*	36.7 ± 1.3	30.6 ± 0.3
Weight (g) 8 days of 1st injection	26.7 ± 0.7	24.6 ± 1.6	29.3 ± 0.4
Grip strength/weight (g/g)	12.4 ± 0.3	9.6 ± 0.6	14.4 ± 0.8
Open field activity			
<i>Distance traveled (cm)</i>	937.6 ± 130.8	411.6 ± 139.4	793.5 ± 76.4
<i>Ambulatory count</i>	450.1 ± 76.7	163.0 ± 64.2	380.8 ± 40.7
<i>Stereotypic Count</i>	1556.4 ± 150.3	499.3 ± 109.4	1054.3 ± 70.1
<i>Vertical count</i>	79.0 ± 10.1	6.0 ± 3.8	30.8 ± 4.5
<i>Jump count</i>	23.8 ± 6.8	0 ± 0	13.3 ± 3.5
<i>Average velocity (cm/s)</i>	35.5 ± 2.9	27.3 ± 6.3	26.2 ± 6.1
<i>Ambulatory episodes</i>	41.7 ± 6.4	14.5 ± 5.8	34.8 ± 3.9
DigiGait™			
<i>Propel (s) Forelimb</i>	0.125 ± 0.003	0.144 ± 0.003	0.130 ± 0.004
<i>Propel (s) Hindlimb</i>	0.197 ± 0.003	0.199 ± 0.002	0.195 ± 0.002
<i>Stride length (cm) Forelimb</i>	7.13 ± 0.13	6.03 ± 0.10	6.84 ± 0.11
<i>Stride length (cm) Hindlimb</i>	7.00 ± 0.09	5.91 ± 0.08	6.77 ± 0.06
<i>Stride Frequency (steps/s) Forelimb</i>	2.69 ± 0.04	2.86 ± 0.03	2.74 ± 0.05
<i>Stride Frequency (steps/s) Hindlimb</i>	2.73 ± 0.04	2.90 ± 0.04	2.77 ± 0.02
<i>Stance width (cm) Forelimb</i>	1.70 ± 0.02	1.82 ± 0.03	1.80 ± 0.03
<i>Stance width (cm) Hindlimb</i>	2.46 ± 0.05	2.40 ± 0.04	2.41 ± 0.02
<i>Paw Area (cm²) Forelimb</i>	0.41 ± 0.01	0.35 ± 0.01	0.39 ± 0.01
<i>Paw Area (cm²) Hindlimb</i>	0.67 ± 0.01	0.62 ± 0.01	0.65 ± 0.01
Total <i>Ubtf</i>, cerebral cortex	1.00 ± 0.05	0.08 ± 0.01	0.98 ± 0.07
Total <i>Ubtf</i>, cerebellum	1.54 ± 0.06	0.12 ± 0.01	1.41 ± 0.05
Total <i>Ubtf</i>, striatum	0.72 ± 0.04	0.10 ± 0.01	0.67 ± 0.06
Total <i>Ubtf</i>, liver	0.67 ± 0.03	0.03 ± 0.01	0.65 ± 0.03

*Values are means ± SEM

Table S3. Primers for Relative Quantitative RT-PCR (QRT-PCR)

Primer	Sequence (5'→3')	Locus	Usage	Product (bp)
UbtF_p85F	gaacggagaagcggactg	NM_011551.6 319 - 336		
UbtF_p85R	tccagcagagtcagcatatctt	NM_011551.6 411 - 390	QRT-PCR (all isoforms)	93 (with UbtF_p85F)
UbtF_p9F	agcgggaaggagtacgagga	NM_011551.6 1071 - 1089		
UbtF_p9R	tcgaactgtccttgagctg	NM_011551.6 1197 - 1178	QRT-PCR (isoform 1)	127 (with UbtF_p9F)
M18S_p74F	aaacggctaccacatccaag	NR_003278.3 448 - 467		
M18S_p74R	tacagggcctcgaagagtc	NR_003278.3 555 - 536	QRT-PCR (18S)	108 (with M18S_p74F)
M28S_p15F	gggttagaccgtcgtgaga	NR_003279.1 4179 - 4198		
M28S_p15R	agccaagcacatacaccaaa	NR_003279.1 4298 - 4279	QRT-PCR (28S)	120 (with M28S_p15F)
M45S_p18F	cccacacgtgtctcgtttc	NR_046233.2 6722 - 6740		
M45S_p18R	cagatggaccgaggggtag	NR_046233.2 6781 - 6763	QRT-PCR (45S)	60 (with M45S_p18F)

Numbers embedded within QRT-PCR primer names refer to universal probe numbers for the Roche LightCycler® 480 System.

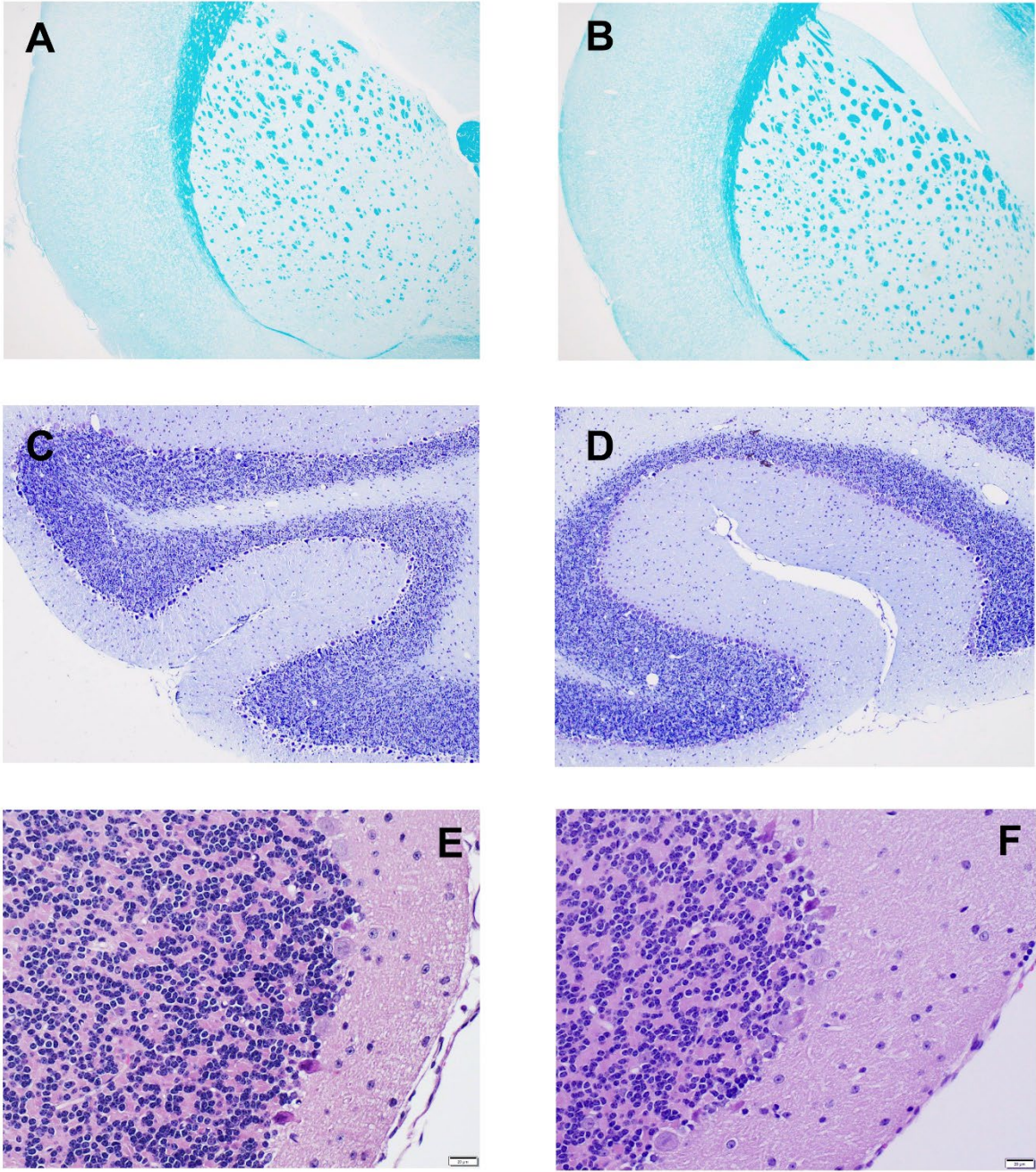


Figure S1. Post-mortem Histology at 18 months in *Ubtfl*^{-/-} and *Ubtfl*^{+/+} Mice. *Ubtfl*^{-/-} (A, C and E). *Ubtfl*^{+/+} (B, D and F). Luxol fast blue (A and B). Cresyl violet (C and D). Hematoxylin & Eosin (E and F).