Supplementary Information

Tanc2-mediated mTOR inhibition balances mTORC1/2 signaling in the developing mouse brain and human neurons

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Supplementary Fig. 1. Hyperactivity and moderate anxiolytic-like behavior in male *Tanc2*^{+/-} mice.

(a) Normal novel object-recognition memory in $Tanc2^{+/-}$ mice (2–5 months; male) in the novel object-recognition test, as shown by novel object preference (% time spent in exploring a novel object relative to the total time spent exploring both familiar and novel objects). F, familiar object; N, new object. Note that these mice also showed hyperactivity in the novel object arena, as supported by the distance moved and movement velocity. The increased frequency of novel object exploration in the mutant mice might be attributable to the increased hyperactivity. Data: minimal, maximal, median, 25%, and 75% values. (n = 17 [WT, HT], *P < 0.05, **P < 0.01, ***P < 0.001, ns, not significant, Student's t-test).

(b) Hyperactivity of $Tanc2^{+/-}$ mice (2–5 months; male) in the open-field test, as shown by distance moved over 60 minutes and total distance moved. Note also that the

time spent in the center region of the open field arena was normal in $Tanc2^{+/-}$ mice, indicative of normal anxiety-like behavior. Data: mean ± SEM (line graphs), minimal, maximal, median, 25%, and 75% values. (n = 13 [WT], 11 [HT], **P < 0.01, ns, not significant, two-way RM ANOVA and Student's t-test).

(c) Hyperactivity of *Tanc*2^{+/-} mice (2–5 months; male) in the Laboras test, as shown by distance moved over 72 hours. The shaded areas represent light-off periods. Data: mean \pm SEM. (n = 16 [WT, HT], **P < 0.01, ***P < 0.001, two-way RM ANOVA [genotype effect P < 0.05]).

(d) Moderate anxiolytic-like behavior of $Tanc2^{+/-}$ mice (2–5 months; male) in the elevated plus-maze test, as shown by time spent in open and closed arms. There was no genotype difference in the total distance moved. Data: minimal, maximal, median, 25%, and 75% values. (n = 13 [WT], 11 [HT], *P < 0.05, ns, not significant, two-way RM ANOVA with Bonferroni test and Student's t-test).

(e) Normal anxiety-like behavior of $Tanc2^{+/-}$ mice (2–5 months; male) in the light-dark test, as shown by time spent in the light chamber/zone and frequency of transitions between light and dark chambers. Data: minimal, maximal, median, 25%, and 75% values. (n = 13 [WT], 10 [HT], ns, not significant, Student's t-test).



Supplementary Fig. 2. Suppressed pup ultrasonic vocalization but normal social interaction, social novelty recognition, and depression-like behavior in male *Tanc2*^{+/-} mice.

(a) Normal social interaction and social-novelty recognition in *Tanc2*^{+/-} mice (2–5 months; male) in the three-chamber social-interaction test, as shown by time spent in the chamber and in sniffing the target (stranger/object). Stranger 1, social stranger mouse; Object, inanimate object; Stranger 2, new social stranger mouse. Data: minimal, maximal, median, 25%, and 75% values. (n = 14 mice [WT, HT], ***P < 0.001, Student's t-test).

(b) Modestly suppressed ultrasonic vocalizations (USVs) in $Tanc2^{+/-}$ pups (P3–9; male) separated from their mothers, as shown by the total number of USV calls and the duration of each call. Data: minimal, maximal, median, 25%, and 75% values. n = 23 pups [WT, HT], *P < 0.05, **P < 0.01, ns, not significant, Student's t-test).

(c) Anti-depression-like behavior of $Tanc2^{+/-}$ mice (2–5 months; male) in the forcedswim test, as shown by immobility time. Data: minimal, maximal, median, 25%, and 75% values. (n = 13 [WT], 11 [HT], *P < 0.05, Student's t-test).

(d) Normal depression-like behavior of $Tanc2^{+/-}$ mice (2–5 months; male) in the tailsuspension test, as shown by immobility time. Data: minimal, maximal, median, 25%, and 75% values. (n = 13 [WT], 11 [HT], ns, not significant, Student's t-test).





ns

500

400

300

200

100

0

Supplementary Fig. 3. Female *Tanc2*^{+/-} mice display hyperactivity and anxiolytic-like behavior, but normal depression-like behavior.

(a) Hyperactivity of female $Tanc2^{+/-}$ mice (2–5 months) in the open-field test, as shown by distance moved over 60 minutes and total distance moved. Note also that the time spent in the center region of the open field arena was normal in female $Tanc2^{+/-}$ mice, indicative of normal anxiety-like behavior. Data: mean ± SEM (line gr aphs), minimal, maximal, median, 25%, and 75% values. (n = 16 mice [WT], and 11 mice [HT], **P < 0.01, ns, not significant, two-way RM ANOVA and Student's t-test).

(b) Moderate anxiolytic-like behavior of female $Tanc2^{+/-}$ mice (2–5 months) in the elevated plus-maze test, as shown by time spent in open and closed arms. Data: minimal, maximal, median, 25%, and 75% values. (n = 15 mice [WT], and 11 mice [HT], **P < 0.01, ns, not significant, two-way RM ANOVA with Bonferroni test).

(c) Normal anxiety-like behavior of female $Tanc2^{+/-}$ mice (2–5 months) in the lightdark test, as shown by time spent in the light chamber and frequency of transitions between light and dark chambers. Data: minimal, maximal, median, 25%, and 75% values. (n = 18 mice [WT], and 12 mice [HT], ns, not significant, Student's t-test).

(d) Normal depression-like behavior of female Tanc2+/- mice (2-5 months) in the

forced-swim test, as shown by immobility time. Data: minimal, maximal, median, 25%, and 75% values. (n = 14 mice [WT], and 10 mice [HT], ns, not significant, Student's t-test).

(e) Normal depression-like behavior of $Tanc2^{+/-}$ mice (2–5 months; female) in the tailsuspension test, as shown by immobility time. Data: minimal, maximal, median, 25%, and 75% values. (n = 13 mice [WT], and 10 mice [HT], ns, not significant, Student's t-test).



Supplementary Fig. 4. Conditional Tanc2 KO strategy.

(a) Scheme for the generation of $Tanc2^{fl/fl}$ mice carrying floxed exon 5 of the Tanc2 gene. LacZ, β -galactosidase gene; neo, neomycin resistance cassette; DTA, diphtheria toxin gene; Flp, flippase; Cre, Cre recombinase; Frt site, site for flippase; LoxP site, cleavage site for cre recombinase action.



Supplementary Fig. 5. Tanc1 interacts with mTOR in a serum- and rapamycindependent manner and inhibits mTOR activity in heterologous Cells.

(a) Serum starvation (4 hours) promotes the interaction between Tanc1 and mTOR in heterologous cells, as demonstrated by coimmunoprecipitation. HEK293T cells expressing Flag-Tanc1 (human) were incubated with serum (or no serum; control) for 4 hours prior to coimmunoprecipitation and immunoblot experiments. mTOR signals were normalized to Tanc1 signals for quantification. Data: mean \pm SD. (n = 4 independent experiments, *P < 0.05, Student's t-test).

(b) Rapamycin inhibits serum starvation-induced increases in the interaction between Tanc1 and mTOR in heterologous cells. Flag-Tanc1 was expressed in HEK293T cells in the presence of serum. Pretreatment of cells with rapamycin for 2 hours was followed by serum starvation for 4 hours; cell lysates were subjected to coIP and immunoblot experiments. mTOR signals were normalized to Tanc1 signals for quantification. Data: mean \pm SD. (n = 3 independent experiments, ***P < 0.05, ns, not significant, Student's t-test).

(c) Overexpression of Tanc1 in HEK293T cells suppresses mTOR activity, as shown

by the ratio of total to phosphorylated (active) mTOR. Tanc2 (human) was also used as a control. Flag-tagged Tanc1/Tanc2 were overexpressed in HEK293T cells, followed by immunoblotting for total and phosphorylated (Ser-2448) mTOR. mTOR signals were normalized to α -tubulin signals. Data: mean ± SD. (n = 3 independent experiments, ***P* < 0.01, Student's t-test).



Supplementary Fig. 6. Ketamine induces changes in mTOR activity and synaptic levels of Tanc2-associated and mTORC proteins in the mouse brain.

(a and b) Ketamine induces mTOR activation in the mouse brain (P13–14; 10 mg/kg; i.p.), as shown by the time-dependent increases in the phosphorylation of mTOR and the mTORC1 protein Raptor in crude synaptosomes. Note that synaptic levels of other mTORC1/2 proteins (PRAS40 and Deptor) and PSD-95 also increased, whereas those of Tanc2 (but not Tanc1) were modestly decreased. Data: mean \pm S D. (n = 3 independent experiments, *P < 0.05, **P < 0.01, ***P < 0.001, ns, not significant, one-way ANOVA with Bonferroni test).



Supplementary Fig. 7. Temporal changes in total levels and synaptic enrichment of Tanc2, Deptor, and Tanc1 in cultured mouse hippocampal neurons and the mouse brain.

(a) Western blot analyses of whole lysates from cultured mouse hippocampal neurons show Tanc2 protein levels that are largely stable across developmental stages (DIV/days in vitro 7–28) and stronger relative to Tanc1 at early stages, while Deptor and Tanc1 protein levels gradually increase. Western blot analyses of crude synaptosomes from cultured mouse hippocampal neurons show largely unchanged synaptic levels of Tanc2 proteins across the developmental stages, which contrasts with the increasing synaptic levels of Deptor and Tanc1 proteins. Total and synaptic levels of PRAS40 (a component of mTORC1) were largely unchanged across developmental stages. PSD-95 was used as a positive control for stage-dependent increases in total expression and synaptic enrichment, and β -actin was used as a

loading control.

(b and c) Western blot analyses of whole lysates from the mouse brain (in vivo results) show Tanc2 protein levels that are largely stable across developmental stages (E/embryonic day 18–P/postnatal day 28) and higher relative to Tanc1 at early stages, while Deptor and Tanc1 protein levels gradually increase. Western blot analyses of crude synaptosomes from the mouse brain show decreasing synaptic levels of Tanc2 proteins across the developmental stages, which contrasts with the increasing synaptic levels of Deptor and Tanc1 proteins. Total and synaptic levels of PRAS40 were largely unchanged across developmental stages. PSD-95 was used as a positive control for stage-dependent increases in total expression and synaptic enrichment, and β -actin was used as a loading control. Data: mean \pm SD. (n = 4 independent experiments).



Supplementary Fig. 8. Acute Tanc2 knockdown in cultured mouse neurons, but not glial cells, leads to mTORC1/2 hyperactivity.

(a) Acute knockdown of Tanc2 in cultured mouse neurons by infection with AAV-shRNA (DIV7–14) leads to increased phosphorylation levels of S6 (S235/236), 4E-BP (T37/46), Akt (S473), and GSK3 β (S9), indicative of mTORC1 and mTORC2 hyperactivity. Data: mean ± SD. (n = 3 independent experiments, **P < 0.01, ***P < 0.001, Student's t-test).

(b) Acute knockdown of Tanc2 in cultured mouse glial cells by infection with AAV-shRNA (DIV7–14) does not affect the phosphorylation levels of S6 (S235/236), 4E-

BP (T37/46), Akt (S473) or GSK3 β (S9), except for a small increase in p-S6, suggesting that Tanc2 mainly suppresses mTORC1/2 signaling in neurons rather than glial cells. Note that Tanc2 expression is much weaker relative to Tanc1. Data: mean \pm SD. (n = 3 independent experiments, *P < 0.05, ns, not significant, Student's t-test).

(c) Control co-immunofluorescence staining showing that cultured neurons are positive for NeuN (neuronal marker) but not for GFAP (astrocytic marker) and that cultured glia are positive for GFAP but not for NeuN. DAPI was used for nuclear staining. Scale bar, 50 μ m. Data: mean \pm SEM. (n = 13 images for neuron and glial cultures, ***P < 0.001, Student's t-test).

a P7 Hippocampus



- b
 - P14 Hippocampus



Supplementary Fig. 9. Tanc2 mRNA expression in both glutamatergic and GABAergic neurons in the mouse brain.

(a and b) Tanc2 expression is observed in both Vglut1/2-positive glutamatergic neurons and Gad1/2-positive GABAergic neurons in the cortical and hippocampal regions of the mouse brain at P7 and P14 (hippocampal examples are shown), as revealed by fluorescent in situ hybridization (FISH). Images in the bottom lines of each figure panel indicate enlarged single cells to clearly show the co-expression of Tanc2 with the indicated markers in the same cell. Scale bars, 500 μ m (left), 20 μ m (right), and 5 μ m (bottom). Three independent experiments yielded similar results.

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Supplementary Fig. 10. Characterization of human NPCs and neurons by immunofluorescence staining.

(a) Morphological characterization of pan-NPCs by immunofluorescence staining for Nestin and SOX2 (NPC markers) and pan-neurons at DIV7 and DIV14 by staining for MAP2 and Tuj1 (neuronal markers). Scale bar, 20 μ m. Three independent experiments yielded similar results.

Supplementary table 1. Statictical analyis

	Fig	gure	Assay Performed	Comparison (unless stated otherwise, WT vs HT)	Sex	Age	n	Parameter (Unit)	Variab	le	Descriptive statistics (Average ± SE or SD)		Statistical test and significance		
-										Day 1	WT = 52.20 ± 1.92	Statistical test	Significance p = 0.9999, ns		
										Day 2	HT = 54.78 ± 2.44 WT = 38.55 ± 3.08		p = 0.0180, *	-	
								Latency to escape (s)	Training	Day 3	HT = 49.10 ± 2.28 WT = 31.90 ± 3.80	Two-way ANOVA repeated measures	p = 0.0005, ***	Interaction: F(4, 76) = Tanc2: F(1, 19) = 11.3	2.39, p = 0.0581 37, p = 0.0032
										Day 4	HT = 46.33 ± 2.88 WT = 21.7 ± 3.01	Comparison a marple comparison last	p = 0.0001, ***	Time: F(4, 76) = 45.5	4, p < 0.0001
			Morris water maze				s WT = 20			Day 5	HT = 38.21 ± 3.96 WT = 20.95 ± 2.58		p = 0.0821, ns	ł	
					Male	2-5 months				Target	HT = 29.56 ± 3.40 WT = 30.62 ± 2.42		p = 0.0001, ***		
					ĺ		H1 = 20			A Left	HT = 19.86 ± 2.21 WT = 11.10 ± 1.30		p = 0.9999, ns	himmin - 512 (52)	0.0500.0001
								Time spent in quadrant (s)		A Right	HT = 13.13 ± 1.77 WT = 10.54 ± 1.26	Two-way ANOVA repeated measures Bonferroni's multiple comparison test	p = 0.0278, *	Tanc2: F(1, 152) = 2.1 Quadrant: F(3, 152) =	29.7, p < 0.0001 29.7, p < 0.0001
									Probe test	Opposite	HT = 17.60 ± 1.97 WT = 7.95 ± 1.38		p = 0.9999, rs	-	
								Number of crossing (count)			HT = 9.86 ± 1.93 WT = 3.90 ± 0.47	Mann-Whitney U	p = 0.0128, *	U = 110	Two-tailed
								Swimming speed (cm/s)			HT = 2.35 ± 0.50 WT = 14.29 ± 0.72	Student's t-test	p = 0.0896, ns	t(38) = 1.745	Two-tailed
		ь	Electrophysiology		Male	7-8 weeks	WT = 12 slices/ 5 mice	Hippocampus, HFS, 5 min ,			HT = 12.27 ± 0.89 WT = 152.3 ± 4.96	Student's t-test	p = 0.0100, *	t(20) = 2.8440	Two-tailed
21								211 (30)		0.5	HT = 132.1 ± 5.02 WT = 0.1508 ± 0.0151		p > 0.9999, ns		
										0.75	HT = 0.1264 ± 0.0270 WT = 0.2782 ± 0.0145		p > 0.9999, ns	-	
										1	HT = 0.2636 ± 0.0204 WT = 0.3647 ± 0.0122		p > 0.9999. ns	-	
										1.25	HT = 0.3648 ± 0.0143 WT = 0.4580 ± 0.0113		p > 0.9999, ns	1	
										1.5	HT = 0.4524 ± 0.0122 WT = 0.5269 ± 0.0130		p > 0.9999, ns	-	
							WT = 10 slices/ 3 mice	Input-output ratio		1.75	HT = 0.5303 ± 0.0151 WT = 0.5905 ± 0.0195	Two-way ANOVA repeated measures	p > 0.9999. ns	Interaction: F(10, 1 Tanc2: F(1, 18)	80) = 0.07672, p > 0.9999 = 0.06271, p = 0.8051
							HI = 10 sloes/ 3 moe			2	HT = 0.5912 ± 0.0176 WT = 0.6551 ± 0.0191	Bornertoni's multiple companison test	p > 0.9999. ns	Fiber Volley: F(10	, 180) = 269.9, p < 0.0001
										2.25	HT = 0.6542 ± 0.0226 WT = 0.7085 ± 0.0242		p > 0.9999, ns	-	
			Electrophysiology		Male	7-8 weeks				2.5	HT = 0.7045 ± 0.0286 WT = 0.7745 ± 0.0233		p > 0.9999. ns	-	
	1									2.75	HT = 0.7660 ± 0.0332 WT = 0.8250 ± 0.0284		p > 0.9999. ns	-	
										3	HT = 0.8160 ± 0.0395 WT = 0.8761 ± 0.0333		p > 0.9999, ns	-	
]					25 msec	HT = 0.8695 ± 0.0411 WT = 167.8 ± 3.77		p > 0.9999, ns		
]					50 msec	HT = 159.8 ± 6.43 WT = 173.2 ± 2.23		p > 0.9999, ns	1	
		d]		WT = 10 slices/ 3 mice	Hippocampus. PPR	Inter-pulse interval (ms)	100 msec	HT = 174.8 ± 3.93 WT = 141.3 ± 4.43	Two-way ANOVA repeated measures	p > 0.9999, ns	Interaction: F(5, Tanc2: F(1, 18)	90) = 1.408, p = 0.2291 = 0.01536, p = 0.9027
		-]		HI = 10 slices/ 3 mice			200 msec	HT = 136.9 ± 2.46 WT = 110.7 ± 1.57	ournerron's multiple comparison test	p > 0.9999. ns	Time: F(5, 90	i) = 164.7, p < 0.0001
										300 msec	HT = 109.7 ± 2.41 WT = 110.7 ± 1.57		p > 0.9999. ns	4	
	-	e	Electrophysiology		Male	4-5 weeks	WT = 12 slices/ 6 mice	Hippocampus, HFS, 5 min ,			HT = 109.7 ± 2.41 WT = 142.8 ± 4.52	Student's t-test	p = 0.1041, ns	t(22) = 1.6950	Two-tailed
	-						HI = 12 sloes/ 5 moe	LTP (%)		0.5	HT = 132.4 ± 3.21 WT = 0.0620 ± 0.0062		p > 0.9999, ns		
										1	HT = 0.0746 ± 0.0105 WT = 0.2561 ± 0.0695		p > 0.9999, ns	1	
										1.5	HT = 0.2006 ± 0.0494 WT = 0.4417 ± 0.0802		p > 0.9999, ns	-	
		f					WT = 10 slices/ 4 mice	Input-output ratio		2	HT = 0.3295 ± 0.0654 WT = 0.5944 ± 0.0933	Two-way ANOVA repeated measures	p > 0.9999, ns	Interaction: F(6, Tanc2: F(1, 2	126) = 2.029, p = 0.0665 1) = 1.551, p = 0.2267
						3-4 weeks	HT = 13 slices/ 5 mice			3	HT = 0.4473 ± 0.0693 WT = 0.8305 ± 0.107	Comparison a marple comparison near	p > 0.9999, ns	Fiber Volley: F(6	, 126) = 157, p < 0.0001
					Male					4	HT = 0.6588 ± 0.0829 WT = 1.0239 ± 0.1167		p = 0.6209, ns	ł	
			Electrophysiology							5	HT = 0.8215 ± 0.0871 WT = 1.2235 ± 0.1273		p = 0.3592, ns	4	
								Hippocampus, PPR		20 msec	HT = 0.9914 ± 0.0960 WT = 167.8 ± 3.77		p = 0.6200, ns		
										50 msec	WT = 173.2 ± 2.23		p > 0.9999, ns	1	
		9					WT = 11 slices/ 4 mice HT = 13 slices/ 5 mice		Inter-pulse interval (ms)	100 msec	HT = 174.8 ± 3.93 WT = 155.2 ± 2.08	Two-way ANOVA repeated measures Bonferron's multiple comparison test	p > 0.9999, ns	Interaction: F(4, 88) = 1.388, p = 0.2447 Tanc2: F(1, 22) = 0.1803, p = 0.6752 Time: F(4, 88) = 140.2, p = 0.0001	88) = 1.388, p = 0.2447) = 0.1803, p = 0.6752
										200 msec	WT = 139.4 ± 3.42 WT = 141.3 ± 4.43		p > 0.9999, ns	1 ime: F(4, 8t	i) = 149.3, p < 0.0001
										500 msec	WT = 110.7 ± 1.57 HT = 109.7 ± 2.41		p > 0.9999, ns		
		h	Electrophysiology		Male	2-3 weeks	WT = 8 slices/ 6 mice HT = 9 slices/ 5 mice	Hippocampus, 5 Hz, 5 min NMDAR LTD (%)			WT = 152.3 ± 4.96 HT = 132.1 ± 5.02	Student's t-test	p = 0.0134, *	t(15) = 2.8040	Two-tailed
		i.	Electrophysiology			3-4 weeks	WT = 9 slices/ 5 mice HT = 7 slices/ 4 mice	Hippocampus, DHPG (50 µ M), 5 min mGluR LTD (%)			WT = 67.6 ± 3.15 HT = 70.4 ± 4.11	Student's t-test	p = 0.6005, ns	t(14) = 0.5358	Two-tailed
ŀ		1					1177 0		TANC2						
							WT = 0		TANC2		WT = 1.19 ± 0.12 (SD)	Mann-Whitney U	p = 0.0281, *	U = 11	Two-tailed
							WT = 8 HT = 8 HT = 6		PSD-95		WT = 1.19 ± 0.12 (SD) HT = 0.80 ± 0.11 (SD) WT = 1.00 ± 0.19 (SD)	Mann-Whitney U Studen's t-test	p = 0.0281, * p = 0.8455, ns	U = 11 t(10) = 0.2	Two-tailed
							WT = 6 HT = 6	-	PSD-95 mTOR		$WT = 1.19 \pm 0.12 (SD)$ $HT = 0.80 \pm 0.11 (SD)$ $WT = 1.00 \pm 0.19 (SD)$ $HT = 1.02 \pm 0.19 (SD)$ $WT = 1.00 \pm 0.12 (SD)$	Mann-Whitney U Student's I-test Mann-Whitney U	p = 0.0281, * p = 0.8455, ns p = 0.1304, ns	U = 11 t(10) = 0.2 U = 17	Two-tailed Two-tailed Two-tailed
							WT = 8 WT = 6 HT = 6 WT = 8 HT = 8	-	TANC2 PSD-95 mTOR p-mTOR		$\begin{split} WT &= 1.19 \pm 0.12 (SD) \\ HT &= 0.80 \pm 0.11 (SD) \\ WT &= 1.00 \pm 0.19 (SD) \\ HT &= 1.02 \pm 0.19 (SD) \\ WT &= 1.02 \pm 0.12 (SD) \\ HT &= 1.02 \pm 0.12 (SD) \\ HT &= 1.02 \pm 0.13 (SD) \\ HT &= 0.91 \pm 0.13 (SD) \\ HT &= 5.19 \pm 1.34 (SD) \end{split}$	Mann-Whitney U Student's Hest Mann-Whitney U Student's Hest	p = 0.0281, * p = 0.3455, ns p = 0.1304, ns p = 0.0076, **	U = 11 t(10) = 0.2 U = 17 t(14) = 3.1130	Two-tailed Two-tailed Two-tailed Two-tailed
							WT = 8 HT = 8 HT = 6 HT = 6 HT = 8 HT = 8	-	PSD-95 mTOR p-mTOR AME		$\begin{split} WT &= 1.19 \pm 0.12 (SD) \\ HT &= 0.20 \pm 0.01 (SD) \\ WT &= 1.00 \pm 0.01 (SD) \\ HT &= 1.02 \pm 0.01 (SD) \\ WT &= 1.02 \pm 0.01 (SD) \\ WT &= 0.20 \pm 0.01 (SD) \\ WT &= 0.29 \pm 0.01 (SD) \\ HT &= 1.27 \pm 0.16 (SD) \\ HT &= 0.19 \pm 1.04 (SD) \\ HT &= 0.19 \pm 1.04 (SD) \\ HT &= 0.09 \pm 0.02 (SD) \end{split}$	Mann-Whitney U Student's Hest Mann-Whitney U Student's Hest Student's Hest	p = 0.0281, * $p = 0.0455, ns$ $p = 0.1304, ns$ $p = 0.0076, **$ $p = 0.0814, ns$	U = 11 t(10) = 0.2 U = 17 t(14) = 3.1130 t(6) = 1.5120	Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed
							HT = 8 WT = 6 WT = 8 HT = 8 WT = 8		TANC2 PSD-95 mTOR p-mTOR Als p-Als		$\begin{split} WT = t + 18 = 0.125(20) \\ HT = 0.20 = 0.111(20) \\ WT = t - 0.20 = 0.191(20) \\ HT = t - 0.20 = 0.191(20) \\ WT = t - 0.20 = 0.125(20) \\ HT = t - 27 = 0.161(20) \\ HT = t - 27 = 0.161(20) \\ HT = t - 27 = 0.161(20) \\ HT = t - 0.01 = 0.025(20) \\ HT = t - 0.01 = 0.015(20) \\ HT = t - 0.01 = 0.015(20) \\ HT = t - 0$	Mann-Whitney U Student's I-test Mann-Whitney U Student's I-test Student's I-test Student's I-test	p = 0.0281, * p = 0.0465, res p = 0.1304, res p = 0.0276, ** p = 0.1814, res p = 0.0166, *	U = 11 t(10) = 0.2 U = 17 t(14) = 3.1130 t(6) = 1.5120 t(6) = 3.2890	Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed
							нт = 8	Protein levels normalized to	TANC2 PSD-95 mTOR p-mTOR AM p-AM GSK3β		$\begin{array}{l} WT = 138 \pm 012 (200) \\ HT = 0.28 \pm 011 (200) \\ WT = 0.20 \pm 011 (200) \\ WT = 0.20 \pm 011 (200) \\ WT = 0.20 \pm 010 (200) \\ WT = 0.20 \pm 0.01 (200) (200) \\ WT = 0.20 \pm 0.01 (200) $	Mann-Whitney U Student's Heast Mann-Whitney U Student's Heast Student's Heast Student's Heast Student's Heast	$\label{eq:product} \begin{split} \rho &= 0.0281, \ * \\ \rho &= 0.2455, \ rs \\ \rho &= 0.1004, \ rs \\ \rho &= 0.0078, \ *^* \\ \rho &= 0.0184, \ rs \\ \rho &= 0.0186, \ * \\ \rho &= 0.0186, \ * \\ \rho &= 0.0187, \ rs \end{split}$	$\begin{array}{c} U = 11 \\ t(10) = 0.2 \\ U = 17 \\ t(14) = 3.1130 \\ t(6) = 1.5120 \\ t(6) = 3.2890 \\ t(6) = 0.6044 \end{array}$	Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed
		a	Western bibling		Male	P14	ΥΤ = 8	Protein levels normalized to a-3.dulan (Fold change)	TANC2 PSD-66 mTOR p-mTOR Ake p-Aki GSK3β p-GSK3β	Whole brain	$\begin{array}{l} WT = 138 = 0.12 (200) \\ HT = 0.28 = 0.11 (200) \\ WT = 0.20 \pm 0.01 (200) \\ WT = 0.20 \pm 0.0$	Marko Writewy U Stuchen's Heast Marko Writewy U Stuchen's Heast Stuchen's Heast Stuchen's Heast Stuchen's Heast	p = 0.0284, * p = 0.3656, rm p = 0.1564, rm p = 0.0767, ** p = 0.1684, rm p = 0.0766, * p = 0.0766, * p = 0.0766, * p = 0.0766, *	$\begin{array}{c} U=11\\ 1(10)=0.2\\ U=17\\ 1(14)=3.1130\\ 1(6)=1.5120\\ 1(6)=3.2890\\ 1(6)=0.6044\\ 1(6)=0.3636\\ \end{array}$	Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed
			Western bioting		Male	P14	147 = 8 147 = 6 147 = 6 147 = 8 147 = 8 147 = 8 147 = 4 147 = 4 147 = 6	Protein levels cormalized to 3-adds (Fold charge)	ТАКС2	Whole brain	$\begin{array}{l} W^{\prime\prime} = 118\pm0.2\ (200)\\ H^{\prime\prime} = 0.00\pm0.1\ (200)\\ W^{\prime\prime} = 0.00\pm0.0\ (200)\\ H^{\prime\prime} = 0.0$	Mann Whitney U Studen's Heat Mark Whitney U Studen's Heat Studen's Heat Studen's Heat Studen's Heat Studen's Heat	p = 0.0384, * p = 0.3686, rm p = 0.1564, rm p = 0.0767, ** p = 0.0767, ** p = 0.0166, * p = 0.0166, * p = 0.0166, * p = 0.0160, * p = 0.0160, *	$\begin{array}{c} U=11\\ 1(10)=0.2\\ U=17\\ 1(14)=3.1130\\ 1(5)=1.5120\\ 1(5)=0.6044\\ 1(5)=0.6044\\ 1(5)=0.3636\\ 1(10)=0.2162 \end{array}$	Two-tailed
			Weitem Shifing		Male	P14	+++ = 6 +++ = 6 +++ = 6 +++ = 8 +++ = 8 +++ = 8 +++ = 4 +++ = 6 +++ = 6	Protein levels connelated to a balan (Fold change)	TAKC2 PSD-#5 mTOR p-mTOR Ak p-Akt OSKGØ p-GSKGØ PKCa p-PKCa	Whole brain	$\begin{array}{l} W^{\prime\prime} = 118\pm0.2\ (200)\\ W^{\prime\prime} = 0.00\pm0.1\ (200)\\ W^{\prime\prime} = 0.0$	Mann Whitney U Skiden's Heat Mark Whitney U Skiden's Heat Skiden's Heat Skiden's Heat Skiden's Heat Skiden's Heat	$\label{eq:product} \begin{split} p &= 0.0081, ^{*} \\ p &= 0.3064, ^{*} cs \\ p &= 0.1364, ^{*} cs \\ p &= 0.0075, ^{**} \\ p &= 0.0064, ^{*} \\ p &= 0.0064, ^{*} \\ p &= 0.0005, ^{*} \\ cs \\ p &= 0.0005, ^{*} \\ cs \\ c$	U = 11 $I(10) = 0.2$ $U = 17$ $I(14) = 3.1130$ $I(5) = 1.5120$ $I(5) = 3.2890$ $I(5) = 0.8044$ $I(5) = 0.3636$ $I(10) = 0.2162$ $I(10) = 1.654$	Two tailed
			Western Sbitting		Male	P14	ΥΥΤ = 6	Protein broth normalized to e-Adultin (Fold Haripo)	TAKC2 PSD-66 mTOR p-mTOR Ak p-Att OSKGØ p-GSKGØ PKCa S6	Whole brain	$\begin{array}{l} W^{\prime\prime} = 1.18\pm0.2\ (200)\\ W^{\prime\prime} = 0.08\pm0.1\ (200)\\ W^{\prime\prime} = 0.08\pm0.1\ (200)\\ W^{\prime\prime} = 0.08\pm0.1\ (200)\\ W^{\prime\prime} = 0.08\pm0.1\ (200)\\ W^{\prime\prime} = 0.09\pm0.1\ (200)\\ W^{\prime\prime} = 0.$	Mann Whitney U Skider/S Hest Mark/Whitey U Blocker/S Hest Blocker/S Hest Blocker/S Hest Blocker/S Hest Blocker/S Hest Blocker/S Hest Blocker/S Hest Blocker/S Hest	$\label{eq:product} \begin{split} p &= 0.0081, ^{*} \\ p &= 0.3465, res \\ p &= 0.1054, res \\ p &= 0.0075, ^{**} \\ p &= 0.0075, ^{**} \\ p &= 0.0016, ^{*} \\ p &= 0.0003, ^{*} \\ res \\ p &= 0.0003, ^{*} \\ res \\ r$	$\begin{array}{c} U=11\\ t(10)=0.2\\ U=17\\ t(14)=3.1130\\ t(0)=1.5120\\ t(0)=0.2162\\ t(0)=0.2162\\ t(10)=0.2162\\ t(10)=0.2162\\ t(10)=1.654\\ t(0)=1.2780\\ t(0)=0.2780\\ t(0)=0.2162\\ t(0)=0.216\\ t(0)=0.2162\\ t(0)=0.216\\ t(0)=0.216$	Two tailed
		a	Western bitting		Male	P14	ΥΥΤ = 4 ΥΥΤ = 6 ΥΥΤ = 6 ΥΥΤ = 6 ΥΥΤ = 4 ΥΥΤ = 6 ΥΥΤ = 6 ΥΥΤ = 4	Protein breids connectand to bracksbein (Falt dhanga)	TAk2 PSD-85 mTOR p-mTOR Ak p-At OSK3β PKCa p-RKCa S6 p-S6	Whole brain	$\begin{array}{l} W^{\prime\prime} = (18\pm0.2)(00) \\ W^{\prime\prime} = (30\pm0.1)(00) \\ W^{\prime\prime} = (30\pm0.1)(00) \\ W^{\prime\prime} = (30\pm0.1)(00) \\ W^{\prime\prime} = (30\pm0.2)(00) \\$	Mann Whitney U Shadorr's Heat ManvWhitney U Bladorr's Heat Shadorr's Heat Shadorr's Heat Shadorr's Heat Shador's Heat Shador's Heat Shador's Heat ManvWhitney U	$\label{eq:product} \begin{split} p &= 0.0081, * \\ p &= 0.3685, res \\ p &= 0.1564, res \\ p &= 0.0076, ** \\ p &= 0.0076, ** \\ p &= 0.0076, ** \\ p &= 0.0087, res \\ p &= 0.0032, r$	$\label{eq:constraint} \begin{array}{c} U = 11 \\ (t(0) = 0.2 \\ U = 17 \\ (t(4) = 3.1130 \\ t(6) = 1.5120 \\ t(6) = 1.5200 \\ t(6) = 0.2500 \\ t(6) = 0.2500 \\ t(6) = 0.2500 \\ t(10) = 0.2500 \\ t$	Two tailed
		a	Western bibling		Male	P14	н нт - 8 WT - 6 HT - 8 WT - 8 WT - 4 HT - 6 HT - 6 HT - 6 HT - 6	Protein bond connolaed to a Abdum (Faid dhange)	TAK2 PSD-85 mTOR p-mTOR AK p-Att 05K30 PCa 56 p-56 46BP	White bean	$\begin{array}{l} W^{\prime\prime} = (18\pm0.2)(00) \\ H^{\prime\prime} = (30\pm0.1)(00) \\ W^{\prime\prime} = (30\pm0.1)(00) \\ W^{\prime\prime} = (30\pm0.1)(00) \\ W^{\prime\prime} = (30\pm0.3)(00) \\$	Mann Whitney U Studen's Heat Mann Whitney U Studen's Heat	$\begin{array}{c} p = 0.0081, *\\ \\ p = 0.3865, rm\\ \\ p = 0.1554, rm\\ \\ p = 0.0076, **\\ \\ p = 0.0076, **\\ \\ p = 0.0087, rm\\ \\ p = 0.0032, rm\\ \\ p = 0.$	$\label{eq:constraint} \begin{split} & U = 11 \\ & I(10) = 0.2 \\ & U = 17 \\ & I(14) = 3.1130 \\ & I(0) = 1.5120 \\ & I(0) = 0.2520 \\ & I(10) = 0$	Two tailed
			Western bötting		Male	P14	нт - 8	Protein local controllard to a skillard (Fald change)	ТАКС2 PSD-85 mTOR pmTOR AM P-344 05535 PC-3 PKCa PKCa PKCa PKCa PKCa PKCa PKCa PKCa PKCa	Witch bain	$\begin{array}{l} W^{\prime\prime} = (18\pm0.2)(00) \\ H^{\prime\prime} = (30\pm0.1)(00) \\ W^{\prime\prime} = (30\pm0.1)(00) \\ W^{\prime\prime} = (30\pm0.1)(00) \\ W^{\prime\prime} = (30\pm0.0)(00) \\$	Mann Whitney U Studen's Heat Mann Whitney U Studen's Heat	$\label{eq:product} \begin{split} p &= 0.0081, * \\ p &= 0.3665, rm \\ p &= 0.3564, rm \\ p &= 0.0076, ** \\ p &= 0.0076, ** \\ p &= 0.0086, * \\ p &= 0.0087, rm \\ p &= 0.0030, rm \\ p &= 0.00$	$\label{eq:constraint} \begin{split} & U = 11 \\ & q(10) = 0.2 \\ & U = 17 \\ & q(14) = 3, 11, 30 \\ & q(16) = 1, 51, 23 \\ & q(16) = 1, 52, 30 \\ & q(16) = 0, 23, 30 \\ & q(16) = 1, 27, 30 \\ & $	Two tabled
	-	•	Western böring		Malo	P14	ΥΥ = 6 ΥΥ = 6 ΥΥ = 6 ΥΥ = 6 ΥΥ = 6 ΥΥ = 6 ΥΥ = 4 ΥΥ = 6 ΥΥ = 6 ΥΥ = 6 ΥΥ = 6	Protein levels normalized to (Fold change)	TAK2 PB0-66 mTOR pmTOR PA8 PA8 PA8 PG8K3 PKCa PFKCa PFKCa S6 P66 AEBP P4EBP ERK12	While beam	$\begin{array}{l} W^{\prime\prime} = (18\pm0.2)(00) \\ H^{\prime\prime} = (30\pm0.1)(00) \\ W^{\prime\prime} = (30\pm0.0)(00) \\ W^{\prime\prime} = (30\pm0.0)(10) \\$	Mann Whitney U Shudari's Heat Mann-Whitney U Shudari's Heat Shudari's Heat Shudari's Heat Shudari's Heat Shudari's Heat Shudari's Heat Shudari's Heat Mann-Whitney U Shudari's Heat	$\label{eq:product} \begin{split} p &= 0.0081, ^{*} \\ p &= 0.3656, re \\ p &= 0.3564, re \\ p &= 0.0076, ^{**} \\ p &= 0.0076, ^{**} \\ p &= 0.0085, ^{**} \\ p &= 0.0086, ^{**} \\ \end{split}$	$\begin{split} & U = 11 \\ & t(10) = 0.2 \\ & U = 17 \\ & t(14) = 3.1130 \\ & t(8) = 1.5123 \\ & t(8) = 1.5123 \\ & t(8) = 1.2383 \\ & t(10) = 0.2383 \\ & t(10) = 0.2344 \\ & t(10) = 0.$	Two tailed
			Western böring		Male	P14	ΥΥΤ = 6 ΥΥΤ = 6 ΥΥΤ = 6 ΥΥΤ = 6 ΥΥΤ = 6 ΥΥΤ = 4 ΥΥΤ = 4 ΥΥΤ = 4	Protein levels consulted to detail (Fold change)	TAK2 PBD-86 mTOR pmTOR AX p-AK 0SK38 PKCa PKCa PKCa PKCa S6 PS6 4EBP P4EBP ERK12 PERK12	Witebean	$\begin{array}{l} W^{\prime\prime} = 1.18 \pm 0.2 (200) \\ H^{\prime\prime} = 0.20 \pm 0.11 (201) \\ W^{\prime\prime} = 0.0 \pm 0.01 (201) $	Mann Whitney U Studen's Heat Mann-Whitney U Studen's Heat Studen's Heat Studen's Heat Studen's Heat Studen's Heat Studen's Heat Studen's Heat Mann-Whitney U Studen's Heat Mann-Whitney U	$\label{eq:product} \begin{split} p &= 0.0081, * \\ p &= 0.3684, rs \\ p &= 0.3584, rs \\ p &= 0.0078, ** \\ p &= 0.0078, ** \\ p &= 0.0085, ** \\ p &= 0.0085, ** \\ p &= 0.0085, rs \\ p &= 0.0385, rs \\ p &= 0.0386, ** \\ p &= 0.0$	$\begin{split} U &= 11 \\ t(10) = 0.2 \\ U &= 17 \\ t(14) = 3.1130 \\ t(16) = 1.5120 \\ t(16) = 1.2880 \\ t(16) = 0.2336 \\ t(10) = 0.2162 \\ t(10) = 0.276 \\ t(10) = 0.2776 \\ t(1$	Two tailed
	-		Western bibiting		Male	P14	WT = 0	Protein levels normalized to s-s-dubute (rind manapol	ТАКС2 PSD-85 	While brain	$\begin{array}{l} W^{\prime \prime} + 18 \pm 0.2 (60) \\ W^{\prime \prime} - 0.03 \pm 0.11 (60) \\ W^{\prime \prime} = 0.03 \pm 0.12 (60) \\ W^{\prime \prime} = 0.03 \pm 0.12 (60) \\ W^{\prime \prime} = 0.03 \pm 0.12 (60) \\ W^{\prime \prime} = 0.03 \pm 0.01 (60$	Mano Whitey U Studen's Heat Mano Whitey U Studen's Heat Mano Whitey U Studen's Heat Mano Whitey U Studen's Heat	$\begin{split} \rho &= 0.0381, * \\ \rho &= 0.3656, rm \\ \rho &= 0.3564, rm \\ \rho &= 0.0076, ** \\ \rho &= 0.0076, ** \\ \rho &= 0.0076, ** \\ \rho &= 0.0087, rm \\ \rho &= 0.0086, * \\ \rho &= 0.008$	$\begin{split} & U = 11 \\ & (110) = 0.2 \\ & U = 17 \\ & (14) = 3.1730 \\ & (16) = 1.5320 \\ & (16) = 1.5320 \\ & (16) = 1.2780 \\ & (16) = 0.2782 \\ & (16) = 1.2780 \\ & U = 0 \\ & (16) = 2.7740 \\ & U = 0 \\ & (16) = 0.2774 \\ & U = 4 \\ & (16) = 0.2772 \end{split}$	Two tabled
			Western bioting		Male	P14	भग - व भग - व	Protein levels normalized to s-bublis (rindi ofwage)	TAK2 PSD-85 mTOR p-mTOR Ax p-Mt OBCIβ p-QBK3β PPCca S6 p-85 4EBP p-RK12 pA8 p-938	While bain	$ \begin{array}{c} W = +18 \pm 0.2 (20) \\ H = -0.0 \pm 0.1 (20) \\ W = +0.0 \pm 0.0 (20) \\$	Mann Whitney U Studen's Ises Mann Whitney U Studen's Ises Studen's Ises Studen's Ises Studen's Ises Studen's Ises Studen's Ises Studen's Ises Mann-Whitney U Studen's Ises Mann-Whitney U Studen's Ises Mann-Whitney U Studen's Ises	$\begin{split} \rho &= 0.0081, ^{\circ} \\ \rho &= 0.8465, res \\ \rho &= 0.1054, res \\ \rho &= 0.0075, ^{\circ} \\ \rho &= 0.0164, res \\ \rho &= 0.0164, ^{\circ} \\ \rho &= 0.0160, ^{\circ} \\ \rho &= 0.0100, ^{\circ} \\ \rho &= 0.0000, res \\ \rho &= 0.0000$	$\label{eq:constraint} \begin{array}{c} U = 11 \\ \eta(10) = 0.2 \\ U = 17 \\ \eta(14) = 1.5120 \\ \eta(0) = 1.2180 \\ \eta(0) = 1.2180 \\ \eta(0) = 0.2182 \\ \eta(0) = 0.2782 \\ \eta(0) = 0.2782 \\ \eta(0) = 0.2772 \\ \eta(0) = 0.2278 \\ \eta(0) = 0.2778 \\ $	Two tailed
	-	a 	Western börting		Male	P14	WT = 6 WT = 6 WT = 6 WT = 8 WT = 4 WT = 6 WT = 6 WT = 4 WT = 4	Protein levels normalized to e-buble (riski dhareje) Protein levels normalized to e-buble	TAK2 PSD-85 mTOR p-mTOR Alz p-Mt GSK3β p-GSK3β PFCa p-S6 p-S6 p-EBP p-RK12 p38 p-S2 TSC1	Whole brain	$ \begin{array}{l} W = +18 \pm 0.2 (60) \\ H = -0.08 \pm 0.1 (60) \\ W = +0.08 \pm 0.01 $	Mann Whitney U Skiden's Ised Mann Whitney U Skiden's Ised Skiden's Ised Skiden's Ised Skiden's Ised Skiden's Ised Skiden's Ised Skiden's Ised Mann Whitney U Skiden's Ised Mann Whitney U Skiden's Ised Mann Whitney U Skiden's Ised Mann Whitney U Skiden's Ised	$\begin{split} \rho &= 0.0081, ^{\circ} \\ \rho &= 0.3465, res \\ \rho &= 0.4054, res \\ \rho &= 0.0076, ^{\circ+1} \\ \rho &= 0.0076, ^{\circ+1} \\ \rho &= 0.0084, res \\ \rho &= 0.0008, ^{\circ} \\ \rho &= 0.0086, res \\ \rho &= 0.008$	$\begin{split} & U = 11 \\ & (1 = 0) = 0.2 \\ & U = 17 \\ & (1 = 0) = 1.520 \\ & (1 = 0) = 1.520 \\ & (1 = 0) = 1.520 \\ & (1 = 0) = 1.520 \\ & (1 = 0) = 0.5336 \\ & (1 = 0) = 0.5336 \\ & (1 = 0) = 0.5336 \\ & (1 = 0) = 0.5746 \\ & U = 0 $	Two tailed
		ъ	Western bioting		Male	P14	WT = 0 WT = 6 WT = 6 WT = 4 WT = 6 WT = 6 WT = 6 WT = 4 WT = 4 WT = 4 WT = 4	Protein levels normalized to e-8.4.6.4 (Post drampe) Protein levels normalized to e-6.4.6.4 (Post drampe)	TAK2 PSD-85 mTOR p-mTOR Alz p-Mt GSK3β p-GSK3β PKCa S6 p-36 4EBP p-RK12 p38 TSC1 TSC2	Whole brain	$\begin{array}{c} W = +18 \pm 0.2 (60) \\ H = -0.0 \pm 0.1 (60) \\ W = +0.0 \pm 0.0 (60) \\ $	Mann Whitney U Skiden's Ised Mark Whitey U Skiden's Ised Skiden's Ised Skiden's Ised Skiden's Ised Skiden's Ised Skiden's Ised Skiden's Ised Skiden's Ised Skiden's Ised Mark Whitey U Skiden's Ised Mark Whitey U Skiden's Ised Mark Whitey U Skiden's Ised Skiden's Ised Skiden's Ised Skiden's Ised Skiden's Ised	$\begin{split} \rho &= 0.0081, ^{\circ} \\ \rho &= 0.3465, res \\ \rho &= 0.0154, res \\ \rho &= 0.0176, ^{\circ} \\ \rho &= 0.0176, ^{\circ} \\ \rho &= 0.0168, ^{\circ} \\ \rho &= 0.0108, ^{\circ} \\ \rho &= 0.0008, res \\ \rho &= 0.0008$	$\label{eq:constraint} \begin{split} & U = 11 \\ & \mathbb{I}(10) = 0.2 \\ & U = 17 \\ & \mathbb{I}(14) = 1.5120 \\ & \mathbb{I}(10) = 1.5120 \\ & \mathbb{I}(10) = 1.5120 \\ & \mathbb{I}(10) = 0.3336 \\ & \mathbb{I}(10) = 0.2746 \\ & \mathbb{I}(10) = 0.2776 \\ & \mathbb{I}(10) = 0.32276 \\ & \mathbb{I}(10) = 0.3223 \\ & \mathbb{I}(10) = 0.323 \\ & \mathbb{I}(10) = 0$	Two tailed
		a	Western bibling		Malo	P14	WT = 6 WT = 6 WT = 6 WT = 8 WT = 6	Protein levels normalized to e-bublin (riski dhange) Protein levels normalized to shanaa (riski change)	TAK2 PBD-65 mTOR p-mTOR Ak p-At1 GSK3β p-03830 PKCa S6 p-56 4EBP p-468P p-84K12 p38 p524 TSC1 TSC2 PTEN	While brain	$\begin{array}{l} W = +18 \pm 0.2 (60) \\ W = +0.8 \pm 0.2 (60) \\ W = +0.0 \pm 0.1 (60) \\ W = +0.0 \pm 0.0 (60) \\ $	Mann Whitney U Skider/S Heat Mark/Whitey U Skider/S Heat S	$\begin{split} \rho &= 0.0081, * \\ \rho &= 0.0481, * \alpha \\ \rho &= 0.1054, * \alpha \\ \rho &= 0.0574, * \alpha \\ \rho &= 0.0574, * \alpha \\ \rho &= 0.0587, * \alpha \\ \rho &= 0.0588, * \\ \rho &= 0.0588, * \\ \rho &= 0.0584, * \alpha \\ \rho &= 0.0584, * $	$\begin{split} & U = 11 \\ & (10) = 0.2 \\ & U = 17 \\ & (14) = 0.2 \\ & (18) = 1.5120 \\ & (19) = 1.5120 \\ & (19) = 1.2120 \\ & (10) = 1.2120 \\ & (10) = 0.2142 \\ & (10) = 0.2142 \\ & (10) = 0.2142 \\ & (10) = 0.2142 \\ & (10) = 0.2142 \\ & (10) = 0.2142 \\ & (10) = 0.2142 \\ & (10) = 0.2142 \\ & (10) = 0.2142 \\ & (10) = 0.2142 \\ & (10) = 0.2742 \\ & (10) = 0.2772 \\ & (10) = 0.2772 \\ & (10) = 0.2772 \\ & (10) = 0.2772 \\ & (10) = 0.2772 \\ & (10) = 0.2772 \\ & (10) = 0.2772 \\ & (10) = 0.2772 \\ & (10) = 0.2772 \\ & (10) = 0.2762 \\ & (10) = 0.2772 \\ & (10) = 0.2762 \\ & (10) = 0.2772 \\ & (10) = 0$	Two tailed
	-	а	Western Softing		Male	P14	WT = 0 WT = 6 WT = 6 WT = 8 WT = 6 WT = 4 WT = 4 WT = 4	Protein levels normalized to e-Bublin (riski dhango) Protein levels normalized to e-Bublin (Pold normalized to e-Bublin	ТАКС2 P50-85 mTOR pmTOR AM pAM OSKGβ p-G5KGβ PKCa PKCa S6 PKCa S6 PKCa S6 PKCa S6 PKCa S6 PKCa S6 PKCa S6 PKCa S6 PKCa S6 PKCa S6 PKCa S6 PKCa S6 PKCa S6 PKCa S6 PKCa S6 PKCa PKCa PKCa PKCa S6 PKCa PKCA PCCA PCCA PCCA PCCA PCCA PCCA PCCA PCCA PCCA PCCA PCCA PCCA PCCA PCCA PCCA PCCA PCCA	Whole brain	$ \begin{array}{c} W = +18 \pm 0.2 (60) \\ W = +0.8 \pm 0.2 (60) \\ W = +0.0 \pm 0.1 (60) \\ W = +0.0 \pm 0.0 (60) \\$	Mann Whitney U Skider/S Hest Mark/Whitey U Blocker/S Hest Skider/S Hest Skider/S Hest Skider/S Hest Skider/S Hest Skider/S Hest Mark/Whitey U Skider/S Hest Mark/Whitey U Skider/S Hest Skider/S Hest Skider/S Hest Skider/S Hest Skider/S Hest Skider/S Hest Skider/S Hest Skider/S Hest	$\begin{split} & \rho = 0.0081, * \\ & \rho = 0.0485, res \\ & \rho = 0.1504, res \\ & \rho = 0.0576, ** \\ & \rho = 0.0576, ** \\ & \rho = 0.0107, ** \\ & \rho = 0.0032, res \\ & \rho = 0.0108, ** \\ & \rho = 0.0032, res \\ & \rho = 0.0034, ** \\ & \rho = 0.0034, res \\ & \rho = 0.0034, r$	$\begin{split} & U = 11 \\ & (10) = 0.2 \\ & U = 17 \\ & (14) = 0.2 \\ & (16) = 0.2380 \\ & (16) = 0.3380 \\ & (16) = 0.3436 \\ & (16) = 0.2162 \\ & (16) = 0$	Two tailed
			Western bötting		Malo	P14	WT = 6 WT = 6	Protein levels normalized to e-Autoin (rold Harrigo) Protein levels normalized to e-Autoin (Field sharego)	ТАКС2 PBD-85 mTOR pmTOR AM PAM 05KGβ PGKKG PKCa PKCA PCCA PC	Whole brain	$ \begin{array}{c} W = +18 \pm 0.2 (60) \\ W = +0.8 \pm 0.2 (160) \\ W = +0.0 \pm 0.1 (160) \\ W = +0.0 \pm 0.0 (160) \\ W = +0.0 \pm 0.0 $	Mann Whitney U Skider/S Hest Buder/S Hest Studer/S Hest Studer/S Hest Studer/S Hest Skider/S Hest Skider/S Hest Skider/S Hest Mann/Whitney U Skider/S Hest Skider/S Hest Skider/S Hest	$\begin{split} \rho &= 0.0081, * \\ \rho &= 0.0485, res \\ \rho &= 0.1504, res \\ \rho &= 0.1504, res \\ \rho &= 0.05076, ** \\ \rho &= 0.0507, res \\ \rho &= 0.0507, res \\ \rho &= 0.0108, * \\ \rho &= 0.0108, * \\ \rho &= 0.0080, res \\ \rho &= 0.0080, res \\ \rho &= 0.0080, * \\ \rho &$	$\label{eq:constraint} \begin{split} & U = 11 \\ t(10) = 0.2 \\ & U = 17 \\ & U = 17 \\ t(14) = 3.1130 \\ & t(16) = 1.5120 \\ & t(16) = 3.336 \\ & t(16) = 0.336 \\ & U = 6 \\ & t(16) = 0.376 \\ & U = 6 \\ & t(16) = 0.3776 \\ & U = 6 \\ & t(16) = 0.3776 \\ & U = 6 \\ & t(16) = 0.3776 \\ & U = 6 \\ & t(16) = 0.3776 \\ & U = 6 \\ & t(16) = 0.3776 \\ & U = 6 \\ & t(16) = 0.3776 \\ & U = 6 \\ & t(16) = 0.3776 \\ & $	Two tabled
	Ē		Western bötting		Malo	P14	NT = 6 VT = 6 VT = 6 VT = 6 VT = 6 VT = 4 VT = 6 VT = 6 VT = 6 VT = 6 VT = 6 VT = 6	Protein book normalized to e-bublin (riski dhango) Protein book normalized to e-bublin (riski dhango)	TAK2 PSD-85 mTOR pmTOR AM p-AM OSK3β p-Cascgi PCCa S6 p-S9 4EBP pERK12 p38 p-038 TSC1 TSC2 PTEN PISK PPTK	Whole brain	$ \begin{array}{c} W = +18 \pm 0.2 (60) \\ W = +0.0 \pm 0.1 (60) \\ W = +0.0 \pm 0.0 (60) \\$	Mann Whitney U Skider's Hest Skider's Hest	$\begin{split} & \rho = 0.0081, * \\ & \rho = 0.4065, res \\ & \rho = 0.1554, res \\ & \rho = 0.1574, res \\ & \rho = 0.0076, ** \\ & \rho = 0.0076, ** \\ & \rho = 0.0081, ** \\ & \rho = 0$	$\label{eq:constraint} \begin{split} & U = 11 \\ & t(10) = 0.2 \\ & U = 17 \\ & U = 17 \\ & t(14) = 3.1130 \\ & t(16) = 1.3130 \\ & t(16) = 1.3130 \\ & t(16) = 0.3335 \\ & t(16) = 0.3335 \\ & t(16) = 0.3335 \\ & t(16) = 0.3376 \\ & U = 6 \\ & t(16) = 0.3776 \\ & U = 6 \\ & t(16) = 0.3776 \\ & U = 6 \\ & t(16) = 0.3776 \\ & U = 6 \\ & t(16) = 0.3776 \\ & U = 6 \\ & t(16) = 0.3776 \\ & U = 6 \\ & t(16) = 0.3776 \\ & t(16) = 0.3335 \\ & t(16) = 0.3355 \\ & t(16) = 0$	Two tabled
	-	b	Western blotting		Male	P14	WT = 6	Protein tovels normalized to e-adults (riskt dhange) Protein tovels normalized to e-adults (riskt dhange)	ТАКС2 PB0-66 mTOR AM P-MTOR P-MTOR P-MTOR P-MTCA P-MTCA P-MTCA P-MTEN P-MT	Whole brain	$ \begin{array}{c} W = +18 \pm 0.2 ({\rm BO}) \\ H = -0.08 \pm 0.1 ({\rm BO}) \\ W = -0.08 \pm 0.1 ({\rm BO}) \\ W = -0.08 \pm 0.1 ({\rm BO}) \\ W = -0.08 \pm 0.08 ({\rm BO}) \\ W = -0.08 \pm 0.04 ({\rm BO}) \\ W = $	Mann Whitney U Shadard's Head Shadard's Head Shadard's Head Shadard's Head Shadard's Head Shadard's Head Shadard's Head Mann Whitney U Shadard's Head Mann Whitney U Shadard's Head Shadard's Head Shadard's Head Shadard's Head Shadard's Head Shadard's Head Shadard's Head Shadard's Head	$\begin{split} & p = 0.0081, * \\ & p = 0.3485, res \\ & p = 0.3584, res \\ & p = 0.1574, res \\ & p = 0.0076, ** \\ & p = 0.0076, ** \\ & p = 0.0080, ** \\ & p = 0.0080, ** \\ & p = 0.0080, res \\ & p = 0.$	$\label{eq:constraint} \begin{split} & U = 11 \\ t(10) = 0.2 \\ & U = 17 \\ & U(10) = 1.7130 \\ & U(10) = 1.7130 \\ & U(10) = 1.7130 \\ & U(10) = 0.2162 \\ & U(10) = 0.2162 \\ & U(10) = 0.2162 \\ & U(10) = 0.2176 \\ & U = 6 \\ & U(10) = 0.2776 \\ & U = 6 \\ & U(10) = 0.2776 \\ & U = 6 \\ & U(10) = 0.2776 \\ & U = 6 \\ & U(10) = 0.2776 \\ & U = 6 \\ & U(10) = 0.2776 \\ & U = 6 \\ & U(10) = 0.2776 \\ & U = 6 \\ & U(10) = 0.2276 \\ & U = 6 \\ & U(10) = 0.2276 \\ & U = 6 \\ & U(10) = 0.2276 \\ & U = 6 \\ & U = 0 \\ $	Two tabled
		b	Western böräng		Male	P14	WT = 6	Protein lovels normalized to e-schaftin (Fold dhango) Protein lovels normalized to e-schaftin (Fold normali	ТАКС2 PBD-86 mTOR pmTOR AM p-AM 0.9X3β p-G8X3β PKCa 0.9X58 PKCa P-PKCa 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58 PKCA 0.9X58	Whole brain	$ \begin{array}{c} W = +18 \pm 0.2 (20) \\ H = -0.0 \pm 0.11 (20) \\ W = -0.0 \pm 0.01 (20) \\ W = -0.0 \pm 0.01$	Mano Writony U Shador's Heat Shador's Heat Shador's Heat Shador's Heat Shador's Heat Shador's Heat Shador's Heat Shador's Heat Mano Writony U Shador's Heat Shador's Heat	p = 0.0081, * $p = 0.3485, res$ $p = 0.1584, res$ $p = 0.1584, res$ $p = 0.0076, **$ $p = 0.0076, **$ $p = 0.0082, res$	$\label{eq:constraints} \begin{split} & U = 11 \\ & (t10) = 0.2 \\ & U = 17 \\ & (t14) = 3.1130 \\ & (t14) = 3.1130 \\ & (t16) = 1.2330 \\ & (t16) = 0.2330 \\ & (t16) = 0.2330 \\ & (t16) = 0.2162 \\ & (t16) = 0.2762 \\ & (t16) = 0.2762 \\ & (t16) = 0.2772 \\ & (t1$	Two tabled
		b	Western börting		Male	P14	WT = 6 WT = 4 WT = 4	Protein levels normalized to s.s.d.uke (Pod dinampi) Protein levels normalized to s.s.d.uke (Pod dinampi)	TAK2 PBD 46 PBD 46 PBD 46 PBD 46 PBD 46 PBD 46 PAN	Whole brain	$\begin{array}{l} W = +18 \pm 0.2 (20) \\ H = -0.20 \pm 0.11 (20) \\ W = -0.0 \pm 0.01 (20) \\ W = -0.0 \pm 0.01$	Mann Withing U Studen's Heat Mann Withing U Studen's Heat Studen's Heat Studen's Heat Studen's Heat Studen's Heat Studen's Heat Mann Withing U Studen's Heat Mann Withing U Studen's Heat Studen's Heat	$ \begin{array}{c} p = 0.0081, * \\ \\ p = 0.3465, res \\ \\ p = 0.1504, res \\ \\ p = 0.1507, ** \\ \\ p = 0.0076, ** \\ \\ p = 0.0016, ** \\ \\ p = 0.0016, ** \\ \\ p = 0.0027, res \\ \\ p = 0.0028, ** \\ $	$\label{eq:constraint} \begin{split} & U = 11 \\ & (t) = 0.2 \\ & U = 17 \\ & (t) = 3.1130 \\ & (t) = 3.2000 \\ & (t) = 3.2000 \\ & (t) = 3.2000 \\ & (t) = 0.2000 \\ & (t) = 0.20$	Two tailed
	-	b	Western bibling		Male	P14	нт - 6 	Protein levels normalized to s-d-dute (find onlarge)	TAK2 PSD-85 mTOR pmTOR Akt p-Akt GSK3β p-GSK3β p-GSK3β p-GKCa p-PRCa S6 p-S6 4EBP pERK12 pB8 p-938 TSC1 TSC2 PTEN PISK PS0-95 mTOR pFISK TAK22 PS0-95 mTOR	Whole brain	$\begin{array}{l} W = 118 \pm 0.2 (20) \\ H = 0.20 \pm 0.11 (20) \\ W = 1.00 \pm 0.12 (20) \\ W = 1.00 \pm 0.12 (20) \\ W = 1.00 \pm 0.12 (20) \\ W = 1.00 \pm 0.01 (20) \\ W = 1.00 \pm 0.01 $	Mann Withing U Studen's Ised Studen's Ised Studen's Ised Studen's Ised Studen's Ised Studen's Ised Studen's Ised Studen's Ised Mann Withing U Studen's Ised Mann Withing U Studen's Ised Studen's Ised Studen's Ised Studen's Ised Studen's Ised Studen's Ised Studen's Ised Studen's Ised Studen's Ised	$ \begin{array}{c} \rho = 0.0081, ^{\circ} \\ \rho = 0.0081, ^{\circ} \\ \rho = 0.1084, ^{\circ} \\ \rho = 0.1084, ^{\circ} \\ \rho = 0.0055, ^{\circ} \\ \rho = 0.0050, ^{\circ} \\ \rho = 0$	$\label{eq:constraints} \begin{split} & U = 11 \\ & \forall (10) = 0.2 \\ & U = 17 \\ & U = 11 \\ & U = 11 \\ & U = 11 \\ & U = 17 \\ & U = 11 \\ & U = 17 \\ & U = 11 \\ & U = 17 \\ & U = 11 \\ & U = 17 \\ & U = 17 \\ & U = 11 \\ & U = 17 \\ & U = 17 \\ & U = 17 \\ & U = 11 \\ & U = 17 \\ & U = 17 \\ & U = 17 \\ & U = 11 \\ & U = 17 \\ & U = 17 \\ & U = 11 \\ & U = 17 \\ & U = 17 \\ & U = 11 \\ & U = 17 \\ $	Two tailed
		b	Western börfing		Male	P14	нт = 0 	Protein levels normalized to s-duble (riski drawge) Protein levels normalized to s-duble (riski drawge)	TAK2 PSD 45 PSD 45 PSD 45 PSD 45 PSD 45 PSG 44 PA4 PA4 PSG 45 PSG 45 PSG 45 PFCa PFKCa PFKCa PFKCa PFKCa PFKCa PFKCa PFKCa PFKCa PFKCa PSG 45 PFKCa PFKCA PFKCA PSG 45 PFKCA PFKCA PSG 45 PFKCA PFKC	While brain	$\begin{array}{l} W = 118 \pm 0.2 (20) \\ W = 108 \pm 0.1 (20) \\ W = 109 \pm 0.0 (20) \\ W = 109 \pm 0.0 $	Mann Whitney U Studen's Issel Mann Whitney U Studen's Issel Studen's Issel Studen's Issel Studen's Issel Studen's Issel Studen's Issel Mann Whitney U Studen's Issel Mann Whitney U Studen's Issel Studen's Issel Studen's Issel Studen's Issel Studen's Issel Studen's Issel Studen's Issel Studen's Issel	$ \begin{array}{c} \rho = 0.0081, ^{\circ} \\ \rho = 0.0481, ^{\circ} \\ \rho = 0.1564, ^{\circ} \\ \rho = 0.0165, ^{\circ} \\ \rho = 0.0166, ^{\circ} \\ \rho = 0.0166, ^{\circ} \\ \rho = 0.0166, ^{\circ} \\ \rho = 0.0106, ^{\circ} \\ \rho = 0.0166, ^{\circ} \\ \rho = 0.0066, ^{\circ} \\ \rho = 0.00666, ^{\circ} \\ \rho = 0.006666, ^{\circ} \\ \rho = 0.006666, ^{\circ} \\ \rho = 0.006666, ^{\circ} \\ \rho = 0.0066666, ^{\circ} \\ \rho = 0.00666666, ^{\circ} \\ \rho = 0.00666666, ^{\circ} \\ \rho = 0.0066666666, ^{\circ} \\ \rho = 0.00666666666666666666666666666666666$	$\label{eq:constraints} \begin{split} & U = 11 \\ & \forall (10) = 0.2 \\ & U = 17 \\ & (14) = 2.1320 \\ & (14) = 2.1320 \\ & (14) = 2.1320 \\ & (16) = 0.2330 \\ & (17) = 0.2462 \\ & (16) = 0.2462 \\ & (16) = 0.2762 \\ & (16) = 0.2770 \\ & U = 6 \\ & (16) = 0.2772 \\ & (16) = 0.3270 \\ & U = 6 \\ & (16) = 0.3270 \\ & U = 6 \\ & (16) = 0.3270 \\ & U = 6 \\ & (16) = 0.3270 \\ & U = 6 \\ & (16) = 0.3270 \\ & U = 6 \\ & (16) = 0.3270 \\ & U = 1 \\ & (16) = 0.0330 \\ & (16) = 0.3281 \\ & U = 1 \\ & (16) = 0.3230 \\ & U = 1 \\ & U = 1 \\ & (16) = 0.3230 \\ & U = 1 \\ $	Two tailed
	-	b	Western börting		Male	P14	нт = 0 	Protein levels normalized to s-duble (riski drampe) Protein levels normalized to s-duble (riski drampe)	ТАКС2 PSD-85 mTOR p-mTOR AM p-MA GSK35 p-GSK35 p-PRCa 56 p-PRCa 56 p-S5 4EBP p-ERK12 p38 p-933 TSC1 TSC2 PTEN p-PTEN PSD-96 mTOR p-mTOR AM p-MITOR AM	Whole brain	$\begin{array}{l} W = 118 \pm 0.2 (20) \\ W = 108 \pm 0.1 (20) \\ W = 108 \pm 0.0 (20) \\ W = 108 \pm 0.0 $	Mann Whitney U Studen's Issel Mann Whitney U Studen's Issel Studen's Issel Studen's Issel Studen's Issel Studen's Issel Studen's Issel Mann Whitney U Studen's Issel Mann Whitney U Studen's Issel Studen's Issel Studen's Issel Studen's Issel Studen's Issel Studen's Issel Studen's Issel	$ \begin{array}{c} \rho = 0.0081, ^{\circ} \\ \rho = 0.3461, ^{\circ}, ^{\circ} \\ \rho = 0.1564, ^{\circ}, ^{\circ} \\ \rho = 0.0076, ^{\circ} \\ \rho = 0.0076, ^{\circ} \\ \rho = 0.0008, ^{\circ} \\ \rho = 0.008, ^{\circ} \\ \rho = 0.008$	$\label{eq:second} \begin{split} & U = 11 \\ & \forall (10) = 0.2 \\ & U = 17 \\ & (14) = 3.1300 \\ & (14) = 3.1300 \\ & (16) = 1.2300 \\ & (16) = 0.2330 \\ & (16) = 0.2330 \\ & (16) = 0.2330 \\ & (16) = 0.2760 \\ & U = 6 \\ & (16) = 0.2770 \\ & U = 6 \\ & (16) = 0.2770 \\ & U = 6 \\ & (16) = 0.2770 \\ & U = 6 \\ & (16) = 0.2770 \\ & U = 6 \\ & (16) = 0.2770 \\ & U = 6 \\ & (16) = 0.2770 \\ & U = 6 \\ & (16) = 0.2770 \\ & U = 6 \\ & (16) = 0.2770 \\ & U = 1 \\ & (16) = 0.0330 \\ & (16) = 0.3330 \\ & (16$	Two tabled
		а b	Western blefting Western blefting		Male	P14	н нт = 8 	Protein levels normalized to e-adults (riski drawpi) Protein levels normalized to e-bulk (riski drawpi)	TAK2 PSD #5 mTOR p-mTOR Ak p-MS GSK3β P-GSK3β P-GSK3β P-GSK3β P-GSK3β P-GSK3β P-GSK3β P-GSK38 P-GSK38 P-GSK38 P-GSK38 P-GSK38 P-GSK38 P-GSK38 P-GSK38 P-FEN P-FEN P-FEN P-GSK36 mTOR Ak P-MK P-GSK38	While bain	$\begin{array}{l} W = 118 \pm 0.2 (60) \\ W = 108 \pm 0.2 (160) \\ W = 0.08 \pm 0.1 (60) \\ W = 0.08 \pm 0.01 (60) \\$	Mann Whitney U Skador's 1sed Skador's 1sed	$ \begin{array}{c} \rho = 0.0081, ^{\circ} \\ \rho = 0.0481, ^{\circ} \\ \rho = 0.0476, ^{\circ} \\ \rho = 0.0176, ^{\circ} \\ \rho = 0.0176, ^{\circ} \\ \rho = 0.0176, ^{\circ} \\ \rho = 0.0108, ^{\circ} \\ \rho = 0.0032, ^{\circ} \\ \rho = 0.008, ^{\circ} \\ \rho = 0.008,$	$\begin{split} U &= 11 \\ U(10) = 0.2 \\ U &= 17 \\ U(14) = 5.120 \\ U(14) = 5.120 \\ U(16) = 1.2800 \\ U(16) = 0.2402 \\ U(16) = 0.2770 \\ U &= 6 \\ U(16) = 0.2770 \\ U &= 6 \\ U(16) = 0.2772 \\ U(1$	Two tailed
	-	• •	Western blotting		Male	P14	WT = 6 WT = 4	Protein levels normalized to e-adults (Potein levels normalized to communication of the second (Potein levels normalized to (Potein	TAK2 PSD 45 mTOR p-mTOR Akt p-Mt GSK3β PCR-a S6 PPKCa S6 P-856 4EBP P4EBP P4EBP P503 T5C1 T5C2 PTEN PPTEN PNK PPTEN PSD 45 mTOR p-mTOR Akt p-Att GSK3β PCG	Whole brain	$\begin{array}{l} W = 118 \pm 0.2 (20) \\ W = 108 \pm 0.2 (10) \\ W = 100 \pm 0.1 (20) \\ W = 100 \pm 0.0 (20) \\ W = 100 \pm 0.0 $	Mann Whitney U Skider's Ised Buder's Ised Buder's Ised Buder's Ised Buder's Ised Buder's Ised Buder's Ised Mann Whitney U Buder's Ised Buder's Ised	$ \begin{array}{c} p = 0.0081, ^{*} \\ p = 0.0481, ^{*} \\ p = 0.0481, ^{*} \\ p = 0.0476, ^{**} \\ p = 0.0401, ^{**} \\ p$	$\label{eq:constraints} \begin{array}{c} U = 11 \\ t(10) = 0.2 \\ U = 17 \\ t(14) = 1.5120 \\ t(19) = 5.120 \\$	Tie tabld

														·
								p-PKCa		WT = 1.00 ± 0.16 (SD) HT = 1.14 ± 0.14 (SD)		p = 0.0109, *	t(6) = 0.3.636	Two-tailed
								S6		WT = 1.00 ± 0 (SD)		p = 0.4753, ns	t(6) = 0.7614	Two-tailed
								p-\$6	-	WT = 1.00 ± 0 (SD)	1	p = 0.3993, ns	t(6) = 0.907	Two-tailed
								pau	_	HT = 0.92 ± 0.15 (SD)	-	p = 0.0000, na	4(0) = 0.201	1 WO GAMES
2								4EBP		HT = 0.92 ± 0.19 (SD)		p = 0.4761, ns	t(6) = 0.7599	Two-tailed
								p-4EBP		WT = 1.00 ± 0 (SD) HT = 0.97 ± 0.26 (SD)		p = 0.8519, ns	t(6) = 0.195	Two-tailed
								TANC2	1	WT = 1.00 ± 0 (SD) HT = 0.42 ± 0.0P (SD)		p < 0.0001, ***	t(10) = 16.87	Two-tailed
								PSD-95	-	WT = 1.00 ± 0 (SD)	1	p = 0.8255, ns	t(10) = 0.2264	Two-tailed
									-	HT = 0.97 ± 0.21 (SD) WT = 1.00 ± 0 (SD)	-	,		
								mTOR	_	HT = 1.04 ± 0.21 (SD)	-	p = 0.6558, ns	t(10) = 0.4594	Two-tailed
								p-mTOR		WT = 1.00 ± 0 (SD) HT = 0.92 ± 0.17 (SD)		p = 0.3062, ns	t(10) = 1.078	Two-tailed
								Akt		WT = 1.00 ± 0 (SD) HT = 0.13 ± 0.27 (SD)		p = 0.26, ns	t(10) = 1.194	Two-tailed
								p-Akt	-	WT = 1.00 ± 0 (SD)		p = 0.3275, ns	t(10) = 1.029	Two-tailed
								COMPA	-	HT = 0.83 ± 0.38 (SD) WT = 1.00 ± 0 (SD)	-			Two today
	d	Western blotting		Male	P52	WT = 6 HT = 6	Protein levels normalized to β-actin	Сакар	Whole brain	HT = 0.98 ± 0.11 (SD)	Student's t-test	p = 0.1703, 15	1(10) = 0.3001	Two-called
							(Fold change)	p-GSK3β		WT = 1.00 ± 0 (SD) HT = 0.97 ± 0.05 (SD)		p = 0.2735, ns	t(10) = 1.159	Two-tailed
								PKCa		WT = 1.00 ± 0.09 (SD) HT = 0.95 ± 0.15 (SD)		p = 0.5353, ns	t(10) = 0.6421	Two-tailed
								p-PKCa		WT = 1.00 ± 0.14 (SD)	1	p = 0.2121, ns	t(10) = 1.333	Two-tailed
								86	-	HT = 0.92 ± 0.13 (SD) WT = 1.00 ± 0 (SD)	-	n = 0.4457 ms	1(10) = 0.7939	Two tailed
									_	HT = 0.95 ± 0.15 (SD) WT = 1.00 ± 0.(SD)	-	P		
								p-S6		HT = 0.85 ± 0.32 (SD)	-	p = 0.3054, ns	t(10) = 1.08	Two-tailed
								4EBP		WT = 1.00 ± 0 (SD) HT = 0.93 ± 0.19 (SD)		p = 0.4366, ns	t(10) = 0.8104	Two-tailed
								p-4EBP		WT = 1.00 ± 0 (SD) HT = 0.86 ± 0.07 (SD)		p = 0.0017, **	t(10) = 4.256	Two-tailed
								TANC2		GFP = 1.00 ± 0 (SD)		p = 0.0006, ***	t(10) = 4.972	Two-tailed
								-705	-	GFP-Cre = 0.55 ± 0.08 (SD) GFP = 1.00 ± 0 (SD)	-			Tue to bed
1				1	1			mox	-	GFP-Cre = 1.06 ± 0.06 (SD)	-	p = 0.2207, NS	•(+0) = +.045	rwo-caled
1				1	1			p-mTOR	1	GFP-Cre = 1.53 ± 0.20 (SD)	1	p = 0.0242, *	t(10) = 2.652	Two-tailed
1				1	1			Akt	1	GFP = 1.00 ± 0 (SD) GFP-Cre = 0.96 ± 0.07 (SD)		p = 0.6930, ns	t(10) = 0.4064	Two-tailed
1				1	1			p-Akt	1	GFP = 1.00 ± 0 (SD)	1	p = 0.0007, ***	t(10) = 4.837	Two-tailed
1		Western blotting	GEP vs GEP	main	P1/	WT = 6	Protein levels normalized to	(35K28	1	GFP = 1.58 ± 0.12 (SD) GFP = 1.00 ± 0 (SD)	Shulent's tutore	p=0.8213 ~~	t(10) = 0.2240	Two,talled
1			2.1 Value - 100			HT = 6	(Fold change)	oonap	-	GFP-Cre = 1.01 ± 0.04 (SD) GFP = 1.00 + 0.400	-waters a v-HDE	p = 0.02.10,10		- wo-tailed
				1				p-GSK3β	_	GFP-Cre = 1.67 ± 0.14 (SD)	-	p = 0.0008, ***	t(10) = 4.725	Two-tailed
				1	1			S6	1	GFP = 1.00 ± 0 (SD) GFP-Cre = 0.78 ± 0.07 (SD)		p = 0.0215, *	t(10) = 2.72	Two-tailed
				1				p-S6	1	GFP = 1.00 ± 0 (SD)	1	p = 0.0364, *	t(10) = 2.414	Two-tailed
				1	1			4FRP	1	GFP = 1.68 ± 0.28 (SD) GFP = 1.00 ± 0 (SD)	1	p=0.0191 *	\$(10) = 2 704	Two.tollod
				1	1				-	GFP-Cre = 1.40 ± 0.14 (SD) GFP = 1.00 ± 0 (SD)	4	p = 0.0101,		r wo-salied
				1				p-4EBP		GFP-Cre = 2.21 ± 0.40 (SD)		p = 0.0133, *	t(10) = 3.004	Two-tailed
				1	1			TANC2		GFP-Cre = 0.48 ± 0.05 (SD)		p = 0.0006, ***	t(10) = 23.95	Two-tailed
								mTOR		GFP = 1.00 ± 0 (SD) GFP-Cro = 1.1 ± 0.22 (SD)		p = 0.2796, ns	t(10) = 1.143	Two-tailed
								p-mTOR	-	GFP = 1.00 ± 0 (SD)		p = 0.3743, ns	t(10) = 0.93	Two-tailed
									-	GFP-Cre = 1.06 ± 0.17 (SD) GFP = 1.00 ± 0 (SD)	-			
								AR	_	GFP-Cre = 0.99 ± 0.13 (SD)	-	p = 0.9727, ns	1(10) = 0.0351	I wo-tailed
								p-Akt		GFP = 1.00 ± 0 (SD) GFP-Cre = 1.13 ± 0.32 (SD)		p = 0.3343, ns	t(10) = 1.014	Two-tailed
	h	Western blotting	GFP vs GFP-cre	male	P28	WT = 6 HT = 6	Protein levels normalized to β-actin	GSK3β	1	GFP = 1.00 ± 0 (SD) GFP-Cro = 1.04 + 0.15 (SD)	Student's t-test	p = 0.548, ns	t(10) = 0.6218	Two-tailed
				1		HT = 6	(ruid change)	p-GSK3B	1	GFP = 1.00 ± 0 (SD)		p = 0.8376, ns	t(10) = 0.2104	Two-tailed
				1	1				1	GFP-Cre = 0.97 ± 0.34 (SD) GFP = 1.00 ± 0 (SD)	1		100	
				1				36	4	GFP-Cre = 1.29 ± 0.13 (SD)	-	p = 0.0003, ***	1(10) = 5.379	+ wo-tased
								p-S6		GFP-Cre = 1.54 ± 0.78 (SD)		p = 0.1198, ns	t(10) = 1.701	Two-tailed
								4EBP		GFP = 1.00 ± 0 (SD) GFP-Cre = 0.69 ± 0.12 (SD)		p = 0.0001, ***	t(10) = 5.947	Two-tailed
								p-4EBP		CED 4.00 - 0.00D)				Two-tailed
										GFP = 1.00 ± 0 (3D)		p < 0/0001, ***	t(10) = 6.432	
										GFP-Cre = 0.64 ± 0.13 (SD)		p < 0/0001, ***	t(10) = 6.432	
		Electorphysiology				WT vehicle = 10 slices/ 5 mice WT meanwoin = 14 slices/ 6 mice	Hippocampus, 100 Hz, 5min			GFP=1.00±0 (30) GFP-Cre=0.64±0.13 (SD) WT vehicle = 158±6.28 WT rapamycin = 159±5.79	Two-way ANOVA	p < 0/0001, *** WT vehicle vs HT vehicle, p = 0.0025; WT vehicle vs WT rapamycin, rs: HT vehicle	t(10) = 6.432	4.242, p = 0.0450 Tan
	ь	Electorphysiology (Local field current clamp)			7-8 weeks	WT vehicle = 10 slices/5 mice WT rapamycin = 14 slices/6 mice HT vehicle = 12 slices/5 mice HT rapamycin = 15 slices/7 mice	Hippocampus, 100 Hz, 5min HFS LTP (%)			GFP = 1.00 ± 0 (5D) GFP-Cre = 0.64 ± 0.13 (SD) WT vehicle = 158 ± 6.28 WT rapamycin = 159 ± 5.79 HT vehicle = 130 ± 3.33	Two-way ANOVA Bonferroni's multiple comparison test	p < 0/0001, *** WT vehicle vs HT vehicle, p = 0.0025; WT vehicle vs WT raparnycin, rs; HT vehicle vs HT raparnycin, p = 0.0171; WT vehicle vs HT raparnycin, rs	t(10) = 6.432 Interaction F(1, 47) = F(1, 47) = 13.49, p = Treatment F(1, 47) =	4.242, p = 0.0450 Tan 0.0006 5.028, p = 0.0297
	ь	Electorphysiology (Local field current clamp)	-		7-8 weeks	WT vehicle = 10 sitces/5 mice WT rapamycin = 14 sitces/6 mice HT vehice 12 sitces/5 mice HT rapamycin = 15 sitces/7 mice	Hippocampus, 100 Hz, 5min HFS LTP (%)			GFP-Cre = 1.02 c0 (367) GFP-Cre = 0.64 ± 0.13 (SD) WT vehicle = 158 ± 6.28 WT rapamycin = 159 ± 6.29 HT vehicle = 158 ± 6.29 HT rapamycin = 151 ± 3.76 WT vehicle = 51.55 ± 2.27	Two-way ANOVA Bonterroni's multiple comparison test	p < 0/0001, *** WT vehicle vs HT vehicle, p = 0.0025; WT vehicle vs WT rapamycin, rc; HT vehicle vs HT rapamycin, p = 0.0171; WT vehicle vs HT rapamycin, ne WT vehicle vs HT vehicle ne: WT vehicle	t(10) = 6.432 Interaction F(1, 47) = F(1, 47) = 13.49, p = 1 Treatment F(1, 47) = 1	4.242, p = 0.0450 Tan 0.0006 5.028, p = 0.0297
	b	Electorphysiology (Local field current clamp)	-		7-8 weeks	WT vahicle = 10 sloca/ 5 mice WT apamycin = 14 sloca/ 6 mice HT vahicle = 12 sloca/ 5 mice HT repamycin = 15 sloca/ 7 mice	Hippocampus, 100 Hz, Smin HFS LTP (%)		Day 1	GFP-Cre = 1.02 c0 (367) GFP-Cre = 0.64 ± 0.13 (5D) WT vehicle = 158 ± 6.28 WT rapamycin = 150 ± 6.29 HT vehicle = 151 ± 3.76 WT vehicle = 51.56 ± 2.27 WT rapamycin = 50.73 ± 2.13 WT vehicle = 51.56 ± 2.27	Two-way ANOVA Bonferron's multiple comparison test	p < 0.0001, *** WT vehicle vs HT vehicle, p = 0.0025; WT vehicle vs WT rapamycin, rc; HT vehicle vs HT rapamycin, rc = 0.171; WT vehicle vs HT rapamycin, rc; WT vehicle vs HT rapamycin, rc; WT vehicle vs HT	t(10) = 6.432 Interaction F(1, 47) = F(1, 47) = 13.49, p = Treatment F(1, 47) = :	4.242, p = 0.0450 Tan 0.0006 5.028, p = 0.0297
	Þ	Electorphysiology (Local field current clamp)			7-8 weeks	WT vehicle = 10 silces/ 5 mice WT rapamych = 14 silces 6 mice HT vehice = 2 silces/ 5 mice HT rapamych = 15 silces/ 7 mice	Hippocampus, 100 Hz, 5min HFS LTP (%)		Day 1	UP = 1.02 (160) GP-Cro. 064 a.013 (50) WT vehicle = 158 a.6.28 WT reparation = 158 a.6.28 HT vehicle = 130 a.3.3 HT reparation = 15 st a.3.76 WT vehicle = 51.58 a.2.77 WT reparation = 51.58 a.2.28 HT vehicle = 54.88 a.2.28	Two-way ANOVA Borferron's multiple comparison test	p < 0.0001, *** WT vehicle vs HT vehicle, p = 0.0025; WT vehicle vs WT rapamycin, rs; HT vehicle vs HT rapamycin, p = 0.0171; WT vehicle vs HT rapamycin, rs; WT vehicle vs HT vehicle, rs; WT vehicle vs HT vehicle, rs; WT vehicle vs HT vehicle vs HT spannycin, rs; HT vehicle vs HT spannycin, rs; HT vehicle vs HT	t(10) = 6.432	4.242, p = 0.0450 Tar 0.0006 5.028, p = 0.0297
	ь	Electorphysiology (Local field current clamp)			7-8 weeks	WT vehicle = 10 slices/5 mice WT raparrycin = 14 sloce/5 mice HT vehicle = 12 sloce/5 mice HT aparrycin = 15 sloce/7 mice	Hippocampus, 100 Hz, Smin HFS LTP (%)		Day 1	0.97 + 1.03 + 1.03 (BD) 0.97 - 0.04 + 0.13 (BD) WT synthes = 158 + 0.28 WT regression = 158 + 0.29 HT regression = 158 + 0.27 WT values = 55.04 + 0.29 WT values = 55.04 + 0.29 WT values = 35.07 + 0.34	Two-way ANOVA Borferron's multiple comparison test	p < 0.0001; *** WT vehicle vs HT vehicle, p = 0.0025; WT vehicle vs HT rapamycia, rs; HT vehicle vs HT rapamycia, rs; HT vehicle vs HT rapamycia, rs; HT vehicle WT vehicle vs HT vehicle, rs; WT vehicle WT vehicle vs HT vehicle, rs; WT vehicle vs HT rapamycia, rs; MT vehicle vs HT rapamycia, rs; MT vehicle vs HT vs VT vs V vs V V V vs V V V V	t(10) = 6.432 Interaction F(1, 47) = F(1, 47) = 13.49, p = 1 Treatment F(1, 47) = 1	4.242, p = 0.0450 Tar 0.0066 5.028, p = 0.0297
	b	Electorphysiology (Local field current clamp)			7-8 weeks	WT vehicle = 10 stoce/ 5 mice WT rapamych = 14 stoce/ 6 mice HT vehicle = 12 stoce/ 5 mice HT mpamych = 15 stoce/ 7 mice	Hippocampus, 100 Hz, Smin HFS LTP (%)		Day 1 Day 2	UP + 1.024(160) GFPC-0-644-515(160) WT vehicle + 158 + 6.28 WT aparajotic + 159 + 6.29 HT vehicle + 158 + 3.23 HT aparajotic + 151 + 3.16 WT vehicle - 156 + 2.27 WT aparajotic + 516 + 2.27 WT aparajotic + 516 + 2.27 WT relation + 527 + 2.36 HT relation + 527 + 2.36 HT relation + 3.27 + 2.36 HT relation + 3.27 + 2.36 HT relation + 3.27 + 2.36	Teonery ANOVA Borfemon's multiple comparison test	p < 0.0001, ¹¹⁰ WT setslob us HT statutes p < 0.0005, WT WT setslob us WT statutes p < 0.0005, WT with the WT setslob us with the with the setslob us WT vehicles with the setslob us WT vehicl	t(10) = 6.432	4.242, p = 0.0450 Tar 0.0006 5.028, p = 0.0297
	b	Electorphysiology (Local field current clamp)			7-8 weeks	WT webice + 10 alcear 5 mice VT approprint - 14 alcear 6 mice HT webice = 12 alcear 5 mice HT approprint - 15 alcear 7 mice	Hippocampus, 100 Hz, Smin HFS LTP (%)		Day 1 Day 2	047-04-044 (11)(00) 0479-04-044 (11)(00) WT quarker 169 4.2.0 WT quarker 169 4.2.0 HT querker 159 4.2.0 HT querker 151 4.2.0 WT querker 151 4.2.0 HT querker 251 4.2.0 WT querker 251 4.2.0 HT querker 251 4.3.0 HT querker 2527 3.3.0	Teo-say AKDYA Bortemoris nutriple comparison test	p = 0.0001, ¹⁰⁷ VIT vehicles is HT vehicle, p = 0.0005, VIT vehicles VIT Regime, p = 0.0071, VIT vehicle is VIT Regiment, is VIT vehicle, is VIT regiment, is VIT vehicle VIT vehicles is HT vehicle, re; VIT vehicle VIT vehicles is HT vehicle, re; VIT vehicle vehicles vehicle, re; VIT vehicle vehicles vehicle, re; VIT vehicle vehicles vehicles, re; VIT vehicle vehicles vehicles, re; VIT vehicles regerment, re; vehicles vehicles, re; VIT vehicles vehicles, re; VIT vehicles regerment, re; vehicles vehicles, re; VIT vehicles re; vehicles vehicles, re; vehicles, re; VIT vehicles re; vehicles vehicles, re; vehicles, re	t(10) = 6.432	4.242, p = 0.0450 Tar 0.0006 5.028, p = 0.0297
	b	Electorphysiology (Local field current clamp)			7-8 weeks	WT vehicle = 10 sloss/ 5 mice WT gamydn = 14 slose/ 6 mice HT vehicle = 12 slose/ 5 mice HT gamydn = 15 slose 7 mice	Hippocampus, 100 Hz Smin HFS LTP (%)	Training	Day 1 Day 2 Day 3	UDP - 11.64 (15) OFP-Cost - 6.64 x (11) (25) OFP-Cost - 6.64 x (11) (25) OFP-Cost - 6.94 x (11) (25) OFF Cost - 150 x (13) (25) (25) (25) (25) (25) (25) (25) (25	Two way ANDYA Borferon's multiple comparison test	P = 6.0007.** WT velocies w VT registry, p = 0.0005. WT welcies w VT registry, p = 0.0005. WT welcies w VT registry, p = 0.0077. WT velocies w VT registry, p = 0.0077. WT velocies w VT registry, p = 0.0077. WT velocies w VT velocies v VT registry, p = 0.0077. registry, p = 0.0007. WT velocies v VT registry, p = 0.0007. WT velocies v VT registry, p = 0.0007. WT velocies v VT registry, p = 0.0007. WT velocies v VT velocies v VT registry, p = 0.0007. WT velocies v VT velocies v VT velocies v VT velocies v VT welcies v VT velocies v VT velocies v VT velo	t(10) = 6.432 Interaction F(1, 47) = 1 Treatment F(1, 47) = 1 Interaction F(12, 212) Treatment F(3, 63) =	4.242 p = 0.0450 Tan 0.006 5.028 p = 0.0297
	b	Electorphysiology (Local field current ctamp)	WT vehicle as HT vehicle as WT	make	7-8 weeks	WT vehicle = 10 sizes/ 5 mice WT apamydn = 14 sizes/ 6 mice HT vehicle = 12 sizes/ 6 mice HT spannych = 13 sizes/ 7 mice	Hippocampus, 100 Hz, Smin HPS LTP (%) Latency to escape (s)	Training	Day 1 Day 2 Day 3	UP * 11.21 (130) 07F0-01 64 111 (150) 07F0-01 64 111 (150) WT apacity et al. 111 (150) HT apacty et al. 112 et al. HT apacity et al. 112 et al. 114 (130) 114 (130) et al. 112 et al. 114 (130) et al. 114 (130) et al. 114 (130) et al. 114 (130) et al. 114 (130) et al. 114 (130) et al. 114 (130) et al. 11	Two-way ANCVA Borferrori's multiple comparison test Two-way ANCVA repeated measures Borferrori's multiple comparison test	P = 0.0007.** WT vehicles of WT reaction, p = 0.0005.WT which of WT reaction, p = 0.0005.WT which of WT reaction, p = 0.0005.WT with the set of the se	t(10) = 6.432 Interaction F(1, 47) = 13.48, p = 1 Treatment F(1, 47) = 1 Interaction F(12, 212) Treatment F(3, 53) = Time F(4, 212) = 50.4	4.242, p = 0.0450 Tam 0.0008 5.028, p = 0.0297) = 1.905, p = 0.0260 3.274, p = 0.0261 3.274, p = 0.0261
	b	Electorylysiobgy (Local field current champ)	WT vehicle vs HT vehicle vs WT ngaangvon (5 MT	i male	7-8 weeks	WT vehicle = 10 skoss/ 5 mice WT repartym = 4 skos/ 6 mice HT apartymin = 15 skos/ 7 mice WT repartymin = 16 skos/ 7 mice WT repartymin = 16 mice WT apartymin = 15 mice	Hippocampus, 100 Hz, Smin HFS LTP (%)	Training	Day 1 Day 2 Day 3	OFF Care 1.044 x11 (80) If regarding 1.041 x11 (80) If regarding 1.041 x11 (80) VF regarding 1.042 x11 (80)	Two-way ANOVA Bonferroris malagie companion test Two-way ANOVA repeated measures Bonferroris malagie companion test	P = 0.0007.** WT vestices with relations p = 0.0005.WT with respect to the second se	t(10) = 6.432 Internaction F(1, 47) = F(1, 47) = 13.48, p = 1 Treatment F(1, 47) = 1 Internaction F(12, 212) Treatment F(3, 232) Time F(4, 212) = 50.4	4.242, p = 0.0450 Tam 0.0008 5.028, p = 0.0297) = 1.905, p = 0.0290 3.274, p = 0.0260 3.274, p = 0.0261 47, p < 0.0001
	b c	Electorphysiology (.cod field current clump) Morris water maze	WT which is HT which is W equation is HT aquation [mg/kg]	5 male	7-8 weeks	WT vehicle = 10 slotes / 5 mice. WT spannych = 14 slotes / 6 mice. HT apartych = 15 slotes / 7 mice. WT vehicle = 16 mice. WT spannych = 15 mice. WT spannych = 15 mice. HT apartych = 15 mice.	Higgocampur, 100 Hz, Smin Hiffi LTP (%)	Training	Day 1 Day 2 Day 3 Day 4	OFF Cert a 164 et 211 (BD) OFF Cer	Two-way ANDYA Borferror's multiple comparison test Borferror's multiple comparison test	p - 60001. ¹¹¹ WT witches wit Trupinske, p - 0.0005 WT witches wit Trupinske, p - 0.0005 WT witches wit Trupinske, nr. WT witches witch Trupinske, nr. WT witches wit perpendicular and trupinske, nr. WT witches WT wetter us witt witche, nr. WT witches WT wetter us witt witches, nr. WT witches witches witt witches, nr. WT witches WT wetter us witt witches, nr. WT witches WT wetter us witt witches, nr. WT witches WT wetter us witt rupinske, nr. WT witches WT wetter us witter us witter witter us witter witter us witter witter witter us witter us witter witter us witter w	$\label{eq:resonance} \begin{array}{l} t(t) = 6.432 \\ \\ \text{Interaction F(1, 47)} = 13.46, p = 1 \\ \\ \text{Treatment F(1, 47)} = 1 \\ \\ \\ \\ \text{Interaction F(1, 2, 212)} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	4.342 p = 0.0450 Tar 0.0009 5.028, p = 0.0297) = 1.995, p = 0.0290 3.274, p < 0.0291 0'', p < 0.0291
	c	Electorphysiology (Local field current clamp) Monts water maxe	WT vetick vs MT veticka vs WT negamycin w MT elaganych (5 nglag	5 male	7-8 weeks	WT vehicle = 10 sload 5 mice WT vehicle = 12 sload 5 mice HT apartych = 15 sload 7 mice WT vehicle = 16 mice WT vehicle = 16 mice HT apartych = 11 mice HT apartych = 15 mice	Hegocamput, 100 Hz, Senn HPS LTP (%)	Training	Day 1 Day 2 Day 3 Day 4	0.79 1.16.(2) 0FPCex 0.64 x (11)(50) 0FPCex 0.64 x (11)(50) 0FPCex 0.69 a.57 1FT quarkings 1.99 a.57 1FT quarkings 1.90 a.3.33 1FT quarkings 1.91 a.3.7 VFT quarkings 1.92 a.3.7 VFT quarkings 1.92 a.3.7 VFT quarkings 1.92 a.3.7 VFT quarkings 1.92 a.4.7 VFT vehicle 1.92 a.3.7 VFT quarkings 1.94 a.4.3.1 VFT vehicle 2.98 a.3.0	Two-way ANDYA Borferror's multiple comparison test Borferror's multiple comparison test Borferror's multiple comparison test	p = 0.000, *** If I widek ou HT winks, p = 0.0005, *** If I widek ou HT winks, p = 0.0005, *** With equilibrium of the main of	$\begin{array}{l} q(t) = 6.432 \\ \\ \hline \\ Hearcelon F(1,47) = 13.48, \\ \\ F(1,67) = 13.48, \\ \\ F(1,67) = 100 \\ \\ \hline \\ Hearcelon F(12,212) \\ \\ \hline \\ \\ Hearcelon F(12,212) \\ \\ \hline \\ \\ Hearcelon F(12,212) \\ \\ \hline \\ \\ \hline \\ \\ Hearcelon F(12,212) \\ \\ \hline \\ \\ \\ \hline \\ \\ \\ \hline \\ \\ \\ \hline \\ \\ \hline \\ \\ \\ \hline \\ \\ \\ \hline \\ \\ \\ \hline \\ \\ \\ \\ \hline \\ \\ \\ \\ \hline \\ \\ \\ \hline \\ \\ \\ \\ \\ \hline \\$	4.342 p = 0.0480 Tar 0.0008 5.028, p = 0.0297) = 1.985, p = 0.0280 3.274, p = 0.0281 47, p < 0.0281
	c	Electorphysiology (Lood field curret clamp) Mortis water maze	WT which is PT which is WT appropriate The space (β προγγατική της μαριογικής (β	5 male	7-8 weeks 2-4 months	WT vehicle = 10 sizes/ 5 mice WT apartymin = 14 sizes 6 mice HT apartymin = 15 sizes/ 7 mice WT repartymin = 15 sizes/ 7 mice WT repartymin = 15 mice WT repartymin = 15 mice HT repartych = 15 mice	Hippocampus, 100 Hz, Shih HTT LTP (Is)	Training	Day 1 Day 2 Day 3 Day 4 Day 5	OFF Cons. 0.64 4 (11)(00) OFF Cons. 0.64 4 (11)(00) OFF Cons. 0.64 4 (11)(00) WT quantum 199 6 .579 HT quantum 199 6 .579 HT quantum 191 6 .579 HT quantum 191 6 .579 HT quantum 191 6 .579 HT quantum 201 6 .518 6 .277 HT quantum 201 6 .517 6 .236 HT quantum 201 7 .188	Two-way ANOVA Bonferron's malpip companiton test Two-way ANOVA repeated resources Bonferron's malpip companion test	P - 6007. ** With even of the second of the secon	$\begin{array}{l} \P(1) = 6.432 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$	4.242, p = 0.0450 Tain 0.0056 5.038, p = 0.0297) = 1.905, p = 0.0297) = 1.905, p = 0.0291 3.274, p = 0.0291 3.774, p = 0.0291 3.774, p = 0.0291
3	c	Electophysiology (.c.od field current clump) Monts water maze	WT vehicle vs HT vehicle vs WT ngianguch vs HT ngianguch (j ngianguch (j ngianguch vs HT ngianguch (j ngianguch (j ngiangu	s male	7-8 weeks 2-4 months	WT vehicle = 10 slose/ 5 mice. WT reparty = 14 slose/ 6 mice. HT appartych = 15 slose/ 7 mice. WT repartych = 15 slose/ 7 mice. WT repartych = 15 mice. WT appartych = 15 mice. HT appartych = 15 mice.	Higopolampur, 100 Hz, Smin Hiti I LTP (15) Latency to escape (s)	Training	Day 1 Day 2 Day 3 Day 4 Day 5	OFF Cm = 0.64 x 11 (80) If aggings 161 x 376 If aggings 161 x 376 OFF Cm = 0.75 x 233 If aggings 161 x 376 If aggings 161 x 376 If aggings 161 x 376 If aggings 162 x 373 If aggings 162 x 373 If aggings 164 x 377 x 366 If aggings 164 x 374 x 326 If aggings 264 x 310 x 463 If agging 310 x 310 x 466 If agging 310 x 310 x 466 If agging 307 x 310 x 307 x 426 If agging 307 x 310 x 307 x 423 If agging 307 x 310 x 307 x 423	Two-way ANOVA BorferrorS multiple comparison test Two-way ANOVA repeated measures borferrorS multiple comparison test	p - 6007.** WT watks with T watks, p - 0.005; WT with the with T watks, p - 0.005; WT with T watks, p - 0.005; WT watks, p - 0.005; r - 0.005; WT watks, p - 0.005; WT w	$\begin{array}{l} (t0)=6.432\\ \\ \mbox{transition}\ f(1,47)=13.40,\ p=1\\ \\ \mbox{transition}\ f(1,47)=1\\ \\ \mbox{transition}\ f(1,2,71)\\ \\ \mbox{transition}\ f(1,2,71)\\ \\ \mbox{transition}\ f(2,51)\\ \\ \mbox{transition}\ f(2,51)$	4.342, p = 0.0450 Tan 0.006 5.008, p = 0.0297 5.008, p = 0.0297) = 1.998, p = 0.0290 3.274, p = 0.0291 17, p = 0.0291
3	c	Electophysiology (cool field curver champ) Monts water masa	WT vehick vs HT vehick vs WT appanyou vs HT vehicka vs WT appanyou vs mysel status	5 male	7-8 weeks	WT vehicle = 10 slose/ 5 mice. WT spamych = 44 slose/ 6 mice. HT apamych = 15 slose/ 7 mice. WT spamych = 15 slose/ 7 mice. WT spamych = 15 mice. WT spamych = 15 mice. HT apamych = 15 mice.	Higgocampar, 100 Hz, Smin HPB LTP (%)	Tairing	Day 1 Day 2 Day 3 Day 5	0FPCex 0.64 x 4.11 (80) 0FPCex 0.64 x 5.11 (80) VFT querying: 1.94 x 5.11 (80) VFT querying: 1.94 x 5.11 (80) VFT querying: 1.91 x 5.11 (74) VFT querying: 1.91 x 5.11 (74) VFT querying: 1.91 x 5.11 (74) VFT querying: 1.91 x 5.12 (74) VFT querying: 2.91 x 5.27 x 3.01 (74) VFT querying: 2.81 x 5.27 x 3.01 (74) VFT querying: 2.81 x 4.30 (74) VFT querying: 2.81 x 4.30 (74) VFT querying: 2.81 x 4.31 (74) VFT querying: <	Two-way ANDYA Borferror's multiple comparison test Borferror's multiple comparison test One-way ANDYA	p - 6000, *** WT variable with Traphics, p - 0.005; WT WT watches with Traphics, p - 0.005; WT WT watches with Traphics, p - 0.005; WT WT variable with Traphics, p - 0.005; WT WT regarancy on, k = 0.005; WT WT watches with Traphics, k = 0.005; WT WT watches with Traphics, k = 0.005; WT WT watches with Traphics, k = 0.005; WT WT WT watches with Traphics, k = 0.005; WT W	(10) = 6.432 Interaction F1(-27) = 13.40, p = 1 F1(-27) = 13.40, p = 1 F1(-27) = 13.40, p = 1 Transmot F1(-2, 272) Transmot F1(-2, 272) Transmot F1(-2, 272) = 50.4 Interaction F1(-2, 272) = 50.4 Interaction F1(-2, 272) = 50.4	4,322, p = 0.0450 Tar 4,322, p = 0.0450 Tar 5,028, p = 0.0297 1 = 1955 p = 0.0290 3,224, p = 0.0291 2,224, p = 0.0291 2,224, p = 0.0291 2,220, q = 0.0001
3	c	Electorphysiology (c.cost field currer clamp) Montis water maps	WT valick vs HT valick vs WT ngeampcin vs HT ngeampcin (5 ng/kg)	5 male	7-8 weeks	WT vehicle = 10 slose/ 5 mice WT vehicle = 14 slose/ 5 mice HT apartycin = 14 slose/ 7 mice HT apartycin = 15 slose/ 7 mice WT vehicle = 16 mice WT vehicle = 16 mice HT apartycin = 15 mice	Heppochropic 100 Hz, Shih HP3 LTP (%) Latency to escape (%)	Traking	Day 1 Day 2 Day 3 Day 4 Day 5	0.79 1.16.(2) 077-06 0.64 st 111(00) 077-06 0.64 st 111(00) 077-06 1.99 st 2.57 147 quartysis 1.99 st 2.57 147 quartysis 1.91 st 2.57 147 quartysis 2.57 st 2.56 147 quartysis 2.57 st 2.56 147 quartysis 2.56 st 2.57 147 quartysis 2.57 st 2.56 147 quartysis 2.57 st 2.57	Two-way ANDVA Borferror's multiple comparison test Borferror's multiple comparison test Borferror's multiple comparison test Done-way ANDVA Borferror's multiple comparison test		$ \begin{array}{l} q(t) = 6.432 \\ \hline \\ restances (t) = (T_1, d') = \\ \hline \\ restances (t)$	2.02 p = 0.040 5 mit p = 0.007 1 = 1.000 p = 0.0007 2.74 p = 0.0001 3.74 p = 0.0001 3.74 p = 0.0001
3	c	Electorphysiology (Load field curret clamp) Morris water maze	WT which is IT which so WT appartych is IT appartych is applied	s male	7-8 weeks	WT vehicle = 10 slotes 7 mice WT reparty = 14 slotes 6 mice HT appartycin = 15 slotes 7 mice WT repartycin = 15 slotes 7 mice WT repartycin = 15 mice WT appartycin = 15 mice HT appartycin = 15 mice	Hippocampus, 100 Hz, Shin HTT LTP (Is) Latency to escape (s)	Taking Poles test	Day 1 Day 2 Day 3 Day 4 Day 5 Day 5	OP 20.4 ± 10.100 OFP-Core 0.64 ± 11.100 OFP-Core 10.6 ± 10.100 WT querquere 19.6 ± 50 HT querquere 19.6 ± 50 HT querquere 19.1 ± 50 HT querquere 21.1 ± 20 HT querquere 21.1 ± 20 HT querquere 21.1 ± 20 HT querquere 21.6 ± 10 HT querquere 21.6 ± 10 HT querquere 21.6 ± 10 HT querquere 21.6 ± 20 HT querquere 21.0 ± 20 <td>Two-way ANOVA Bonferroris malagie companions test Two-way ANOVA speaked statusters Bonferroris malagie companion test Doe-way ANOVA Bonferroris malagie companion test</td> <td>P - 6007.¹¹ WT vestoks with residue, p - 0.0026, WT With westoks with residue, p - 0.0026, WT with residue with residue, and the residue with r</td> <td>(10) = 6.432 Heraction (F1, 47) = F(1, 57) = 10, 0, 0 Heraction (F12, 112) Heraction (F12, 112) Trans (F4, 712) = 50.4 Heraction (F13, 53) =</td> <td>420, p = 0.0600 Tar 500, p = 0.007 500, p = 0.000 175, p = 0.000 175, p = 0.000 175, p = 0.000</td>	Two-way ANOVA Bonferroris malagie companions test Two-way ANOVA speaked statusters Bonferroris malagie companion test Doe-way ANOVA Bonferroris malagie companion test	P - 6007. ¹¹ WT vestoks with residue, p - 0.0026, WT With westoks with residue, p - 0.0026, WT with residue with residue, and the residue with r	(10) = 6.432 Heraction (F1, 47) = F(1, 57) = 10, 0, 0 Heraction (F12, 112) Heraction (F12, 112) Trans (F4, 712) = 50.4 Heraction (F13, 53) =	420, p = 0.0600 Tar 500, p = 0.007 500, p = 0.000 175, p = 0.000 175, p = 0.000 175, p = 0.000
3	c	Botophysiology (cost field outwor clamp) Moms water mase	WT vehicle vs HT vehicle vs WT ngaangodin vs HT ngaangodin (j ngaangodin vs HT ngaangodin (j ngaangodin vs HT ngaangodin (j)	s make	7-8 weeks	WT vehicle = 10 slose/ 5 mino WT reparty = 14 slose/ 6 miso HT appartych = 15 slose/ 7 mico WT repartych = 15 slose/ 7 mico WT repartych = 15 mico WT appartych = 15 mico HT watche = 11 mico HT appartych = 15 mico	Higpocampur, 100 Hz, Smin HTB LTP (%) Latency to escape (s) Number of crossing (court) Swimming speed (court)	Traing Pole les	Day 1 Day 2 Day 3 Day 4 Day 5	OFF Create 0.64 x 4.11 (80) WT quantyme 1.69 a.5.70 HT quantyme 1.69 a.5.70 HT quantyme 1.51 a.3.76 WT quantyme 1.51 a.3.76 WT quantyme 1.51 a.3.76 WT quantyme 1.51 a.3.76 WT quantyme 2.5.72 a.2.80 WT quantyme 2.5.72 a.2.80 WT quantyme 2.5.72 a.2.80 WT quantyme 2.5.72 a.2.80 WT quantyme 2.5.72 a.3.10 WT quantyme 2.5.72 a.3.10 WT quantyme 2.5.72 a.3.11 WT quantyme 2.5.72 a.3.11 WT quantyme 2.5.72 a.3.11 WT quantyme 2.5.8 a.3.11 WT quantyme 2.5.8 a.3.11 WT quantyme 2.5.1 a.3.12	Two-way ANOVA Bortemort's matigle comparison test Two-way ANOVA speated measures for any ANOVA speated measures for any ANOVA Bortemort's matigle comparison test Downey ANOVA Bortemort's matigle comparison test Downey ANOVA Bortemort's matigle comparison test	p = 6.0001, *** Will watch so if if updias, p = 0.0026, Will Will watch so if if updiase, p = 0.0026, Will Will updiase, p = 0.0017, Will watch so if if updiase, p = 0.0017, Will watch so if if updiase, p = 0.0017, Will watch so if if updiase, p = 0.0017, Will watch so if if updiase, p = 0.0017, Will watch so if updiase, p = 0.0005, Will Will watch so if updiase, p = 0.0005, Will Will watch so if updiase, p = 0.0005, Will Will watch so if updiase, p = 0.0005, Will Will watch so if updiase, p = 0.0005, Will Will watch so if updiase, p = 0.0005, Will Will watch so if updiase, p = 0.0005, Will Will watch so if updiase, p = 0.0005, Will Will watch so if updiase, p = 0.0005, Will Will watch so if updiase, p = 0.0005, Will Will watch so if updiase, p = 0.0015, Will Will watch so if updiase, p =	(10) = 6.432 meansion (71, 07) = (77, 77) = Treatment (71, 77) = (77, 77) = Treatment (71, 77) = Hearston (712, 712) = Treatment (70, 03) = Treatment (712, 712) = 50.4 Meanston (70, 53) = Meanston (70, 53) =	1222 p = 0.0650 Tar 5.005 p = 0.027 1 = 1955 p = 0.0280 1.274 p = 0.0281 1.274 p = 0.0281 3.270 p = 0.0002 3.210 p = 0.0002 2.604 p = 0.0614
3	c	Electorphysiology (c.cot field cutrer clamp) Monts water maze	WT vehick vs HT vehicka vs WT regensystem is HT regensystem (5 ng/kg)	i male	7-8 weeks 2-4 months	WT vehicle = 10 sload 5 mice WT vehicle = 13 sload 5 mice HT appartych = 15 sload 7 mice WT vehicle = 16 mice WT vehicle = 16 mice HT appartych = 15 mice	Higgocamput, 100 Hz, Smin Hit S LTP (%) Latency to escape (s) Number of crossing (count) Stemming speed (cmit)	Taking Public last	Day 1 Day 2 Day 3 Day 5 Day 5	0FP Cerc 4 0.44 x 11 (00) 0FP Cerc 4 0.44 x 12 x 13 1FT quantifies 151 a 3.72 0FP Cerc 4 0.54 x 23 1FT quantifies 0.51 a 2.13 1FT quantifies 0.51 a	Two-way ANDYA Borferror's multiple comparison test Borferror's multiple comparison test Development and the comparison test Development ANDYA Borferror's multiple comparison test Development ANDYA Borferror's multiple comparison test Borferror's multiple comparison test	p - 6000, "" If unknown str funklis, p - 0.005, W Uf unknown str funklis, p - 0.005, W Uf unknown, p - 6.017, WF utilste unkr Tagentyn, n - 6.017, WF utilste unkr Tagentyn, n - 10 funklis, n, W Uf unknown, p - 6.017, WF utilste unkr Tagentyn, n, W Uf unknown, n, WF utilste, n, WF utilste unkr Tagentyn, n, N, W Uf unknown, n, WF utilste, n, WF utilste unkr Tagentyn, n, N, W Uf unknown, n, MF utilste, n, WF utilste Uf unknown, n, WF utilste, n, WF utilste Uf	(10) = 6.432 remotion (71, 47) = (4, 67) = 7(4, 47) = Transmot (71, 47) = Versenation (71, 47) =	2.20, p = 0.260 5.00, p = 0.027 1 = 1.90, p = 0.027 2.274, p = 0.029 3.210, p = 0.020 3.210, p = 0.020 3.210, p = 0.020
3	c	Electorphysiology (Lood field curve clamp) Morris water maze	ИП телісік и IП чейски и III адаапуски III адаапуски II ng Ng	i male	7-8 weeks 2-4 months	WT vehicle = 10 sizes/ 5 mice WT vehicle = 4 sizes/ 6 mice HT apartych = 14 sizes/ 7 mice WT vehicle = 15 mice	Hippocampus (10) HJ, Shin HTE LTP (n) Latency to escape (s) Number of crossing (court) Swimming speed (on s) Tradi distance moved (m)	Training Polie Inst	Day 1 Day 2 Day 3 Day 5 Day 5 00 minutes	OFF Cons. 10.44 (11)(20) OFF Cons. 10.44 (11)(20) OFF Cons. 10.44 (11)(20) OFF Cons. 10.44 (11)(20) OFF Cons. 10.45 (11)(20) OFF Cons. 10.46 (11)(20) OFF Cons. 10.40 (11)(11)(11)(11)(11)(11)(11)(11)(11)(11	Two-way ANDVA Bonferror's malagie comparison test Bonferror's malagie comparison test Bonferror's malagie comparison test Done-way ANDVA Bonferror's malagie comparison test	P - 6007. ** WT websics of IT websics, p - 0.0055. WT WT websics of IT websics, p - 0.0055. WT WT websics of IT websics, p - 0.0055. WT websics of IT websics, p - 0.0057. WT	(10) = 6.42 interaction (71, 67) = 7 Treatmost (71, 77) = 7 Treatmost (71, 77) = 7 Treatmost (71, 712) Interaction (712,	420, p = 0.040 500, p = 0.027 1 = 1900, p = 0.020 2 = 0.000 2 = 0.0000 2 = 0.000 2 = 0.0000 2 = 0.000 2 = 0.000 2 = 0.0000 2 = 0.000 2 = 0.0000 2 = 0.0000 2 = 0.0000 2 = 0.0000 2 = 0.
3	c	Electorphysiology (Loaf field current clamp) Morris water maze	WT which is IT which is WT appropriate IT equations appropriate IT equations applied	s make	7-8 weeks 2-4 months	WT vehicle = 10 alces/ 5 mice WT apartymin = 4 alcos 6 mice HT apartymin = 14 alcos 6 mice HT apartymin = 15 alcos 7 mice WT apartymin = 15 alcos 7 mice WT apartymin = 15 mice HT vehicle = 16 mice WT apartymin = 16 mice WT apartymin = 16 mice HT vehicle = 15 mice HT vehicle =	Hippocampar, 100 Hz, Shin HTT LTP (N) Latency to escape (n) Number of crossing (court) Swemming speed (mil)	Training Probe test	Day 1 Day 2 Day 3 Day 4 Day 5 00 minutes	OFF Cen. 2044 411 (20) If regarging 1914 376 If regarging 1914 316 If regarging 1914 317 If regarging 1914 318 If regarging 1914 319	Teo-sey ANOVA Borferroris matigie comparison test Borferroris matigie comparison test Borferroris matigie comparison test Borferroris matigie comparison test Borferroris matigie comparison test Doe-sey ANOVA Borferroris matigie comparison test Teo-sey ANOVA Borferroris matigie comparison test	P - 6007.** WT vertices with relations p - 6.0026, with which are percent and the second second second second which are percent and the second second second second second which are percent and the second seco	(10) = 6.42 meansion (71, 47) = (71, 77) =	220, p = 0.040 Tan 500, p = 0.0207 100, p = 0.0207 275, p = 0.0207 275, p = 0.020 275, p = 0.000 275, p = 0.0000 275, p = 0.0000 275, p = 0.0000 275, p = 0.0000 27
3	c	Electophysiology (cost field currer champ) Monts water maxe Open field test	WT velick vs HT velicks vs WT najwnych vs HT najwnych (5 stylej) stylej	s male	7.4 weeks	WT vehicle = 10 slose/ 5 mino WT reparty in + 4 slosed 6 miss HT appartych = 14 slosed 7 mics HT appartych = 15 slose/ 7 mics WT vehicle = 16 mics HT vehicle = 16 mics HT vehicle = 15 mics WT appartych = 15 mics HT spartych = 15 mics HT appartych = 16 mics HT appartych = 16 mics HT appartych = 16 mics	Higpocampur, 100 Hz, Smin Hit 3 LTP (N) Latency to escape (n) Number of crossing (court) Swimming speed (cmis) Total distance moved (m)	Training Probe less	Day 1 Day 2 Day 3 Day 4 Day 5 Day 5 60 minutes	OFF Cerc a 0.64 x 4.11 (8D) WT quantyme 1.91 x 3.76 HT quantyme 1.91 x 3.76 WT quantyme 1.91 x 3.76 WT quantyme 2.91 x 3.72 x 3.06 WT quantyme 4.64 x 3.28 WT quantyme 4.64 x 3.01 x 4.63 WT quantyme 4.64 x 3.31 x 4.64 WT quantyme 3.31 x 4.264 x 1.08 WT quantyme 3.31 x 4.264 x 1.01 WT quantyme 3.31 x 4.20 WT quantyme 1.32 x 4.20 WT quantyme 3.31 x 4.20	Two-way ANOVA Bortemort's multiple comparison test Bortemort's multiple comparison test Bortemort's multiple comparison test Doe-way ANOVA Bortemort's multiple comparison test Bortemort's multiple comparison test Bortemort's multiple comparison test Bortemort's multiple comparison test	P - 6007. ¹¹ WT whicks with replicits, p - 0.0050; WT with replicits with replicits, p - 0.0050; WT with replicits, with replicits, nr. WT which with replicits, with replicits, nr. WT which with replicits, nr. WT which with replicits, nr. WT which with replicits, nr. WT which with replicits, nr. WT which with replicits, nr. WT which with replicits, nr. WT which with replicits, nr. WT which with replicits, nr. WT which with replicits, nr. WT which with replicits, nr. WT with with with replicits, nr. WT with with replicits, nr. WT with with replicits, nr. WT with with with replicits, nr. WT with with with replicits, nr. WT with with replicits, nr. WT with with replicits, nr. WT with with replicits, nr. WT with with with replicits, nr. WT with with with replicits, nr. WT with	(10) = 6.432 meansion (71, 47) = (77, 17) =	2.22, p = 0.065 Tan 5.02, p = 0.027 5.02, p = 0.027 3.25, p = 0.027 3.26, p = 0.022 2.60, p = 0.022 2.60, p = 0.051 3.25, p = 0.001
3	c	Electorphysiobgy (c.cat field currer clamp) Monts water maze Open Reid test	WT vetick vs MT veticka vs WT negamyckin is MT eiganyckin (5 ng/kg)	make	7.4 weeks	WT vehicle = 10 sizes / 5 mice WT vehicle = 14 sizes / 5 mice HT apartycin = 14 sizes / 7 mice HT apartycin = 15 sizes / 7 mice WT vehicle = 16 mice WT vehicle = 16 mice WT vehicle = 15 mice WT vehicle = 15 mice WT vehicle = 15 mice HT apartycin = 12 mice HT apartycin = 12 mice	Hepocampue 100 Mz, Shin HP3 LTP (%) Latency to escape (5) Number of crossing (count) Detimining speed (cm/s) Total distance moved (m)	Traking Polieliest	Day 1 Day 2 Day 3 Day 4 Day 5	0FP Cerc 4 0.44 x 11 (80) 0FP Cerc 4 0.44 x 12 x 13.3 HT quantych 51.5 x 2.27 WT quantych 51.5 x 2.28 WT quantych 51.6 x 2.28 WT quantych 51.6 x 2.28 WT quantych 51.6 x 2.28 WT quantych 42.6 x 3.01 WT quantych 23.6 x 3.01 x 4.00 WT quantych 23.0 x 3.00 x 4.01 WT quantych 23.0 x 3.01 x 4.00 WT quantych 23.0 x 3.00 x 4.01 WT quantych 23.0 x 3.00 x 4.01 WT quantych 23.0 x 3.00 x 4.01	Two-way ANDYA Bortemoris multiple comparison test Bortemoris multiple comparison test Development and the comparison test Development and the comparison test Development and the comparison test Development and the comparison test Bortemoris multiple comparison test Bortemoris multiple comparison test	P - 6007, *** Wir verklos in IT verklog p - 0.005, Wi Wir verklos in IT verklog p - 0.005, Wi Wir verklos in IT verklog p - 0.005, Wi Wir verklos in IT verk	(10) = 6.432 remotion (71, 47) = Remotion (71, 47	4202 p = 0.040 5000 p = 0.0007 1 = 1 300 p = 0.0007 2 = 2 = 0.000 2 = 0.000 3 = 0.000 2 = 0.0000 2 = 0.000 2 = 0.0000 2 = 0.00
3	c	Electorphysiology (Lood field curret clamp) Morris water mase Open field test	WT voltak v IIT voltak v WT espanyor III espanyor Bygn WT voltak v IIT voltak v III espanyor v III voltak v III espanyor v III voltak v III	mak	7.8 weeks	WT vehicle = 10 sizes/ 5 mice WT reparty = 14 sizes 6 mice HT apartych = 15 sizes/ 7 mice WT repartych = 15 sizes/ 7 mice WT repartych = 15 mice HT apartych = 15 mice WT repartych = 15 mice HT apartych = 15 mice HT apartych = 15 mice HT apartych = 16 mice	Happocampus, 100 Hz, Shin HTT LTP (N) Latency to escape (s) Number of crossing (count) Statimeting speed (cmil) Total distance moved (m)	Training Probe test Ope	Day 1 Day 2 Day 3 Day 4 Day 5 Day 5 Constant	OFF Cen. 0.64 4 11 (80) OFF Cen. 169 6 .50 HT quadruch 150 6 .30 HT quadruch 151 8 .35 VT robotics - 151 8 .35 VT robotics - 151 8 .37 VT robotics - 151 8 .37 VT robotics - 151 8 .33 VT robotics - 151 8 .33 VT robotics - 151 8 .33 VT robotics - 251 7 .38 VT robotics - 251 7 .30 VT robotics - 313 0 .0 VT robotics - 313 0 .0 VT robotics - 313 0 .0 VT robotics - 151 0 .0	Two-way ANDVA Bonferrori's malpip companions test Two-way ANDVA speaked statusters Bonferrori's malpip companion test Bonferrori's malpip companion test Com-way ANDVA Bonferrori's malpip companion test Two-way ANDVA Bonferrori's malpip companion test	P - 6007.** WT version with resisting - 0.0005.WT WT version with resisting - 0.0005.WT with resisting with regarding - 0.0005.WT with resisting - 0.0005.WT with resisting - 0.0005.WT research resisting - 0.0005.WT research resisting - 0.0005.WT with research resisting - 0.0005.WT with research resisting - 0.0005.WT with research resisting - 0.0005.WT with research resisting - 0.0005.WT research resisting - 0.0005.WT with research resisting - 0.0005.WT research resisting - 0.0005.WT with research resisting - 0.0005.WT research resisting - 0.0005.WT with research research research research with research research research research with research research research with research research research with research research research with research research WT winds with research research with research research research research research research research research research research re	(10) = 6.42 meansion (71, 47) = 7 Treatmost (71, 27) = 7 Treatmost (71, 27) = 7 Treatmost (71, 27) = 7 Treatmost (71, 27) = 7 Hereaction (71, 27) = 8 Hereaction (71, 27) = 8 Hereaction (71, 53) = 7 Hereaction (71	4.202 p = 0.0450 Tar 5.002 p = 0.0257 1.012 p = 0.0257 77 μ = 0.0257 3.700 p = 0.0202 3.700 p = 0.0202 2.604 p = 0.0514 2.604 p = 0.0514 2.604 p = 0.0514 2.607 p = 0.0002
3	c d	Exclophysiology (c.ce field currer clamp) Monts water maze Open field test	The existence of the shore The constraints of the shore the strength of the shore the	nak Mak	7.8 weeks 2.4 months 7.8 weeks 7.8 weeks	WT vehicle = 10 sizes/ 5 mice WT repartyrin = 4 sizes/ 6 mice HT apartyrin = 15 sizes/ 7 mice WT repartyrin = 15 sizes/ 7 mice WT apartyrin = 15 sizes/ 7 mice WT apartyrin = 15 mice HT vehicle = 16 mice WT vehicle = 15 mice HT vehicle = 15 mice WT repartyrin = 16 mice WT vehicle = 16 mice WT vehicle = 16 mice	Hippocamper, 100 Hz, 6mn HTS LTP (N) Latercy to escape (n) Number of crossing (court) Swimming speed (cmil) Total distance moved (m) Total distance moved (m)	Training Training Public lost Open Open Open Open Open Open Open Open	Day 1 Day 2 Day 3 Day 4 Day 5 dam	UP 1.00 1.00 UP 0.64 x 4.11 (80) UP velocities - 169 a 6.20 UP velocities - 267 a 5.36 UP velocities - 268 a 5.31 UP velocities - 273 a 5.20 UP velocit	Teo-way ANOVA Borferrori's maligie comparison test Teo-way ANOVA speaked measures for terroris maligie comparison test Deferroris maligie comparison test Borferroris maligie comparison test Borferroris maligie comparison test Borferroris maligie comparison test Borferroris maligie comparison test	P - 6007. ¹¹ Will reaction of the second	(10) = 6.432 meansion (71, 47) = (71, 77) =	2.202, p = 0.602 3.202, p = 0.602 5.002, p = 0.0207 1.205, p = 0.0202 3.274, p = 0.0202 3.274, p = 0.0202 3.276, p = 0.0202 2.004, p = 0.0202 2.004, p = 0.0022 2.005, p = 0.0
3	6 c	Electorphysiobgy (c.c.e. field currer champ) Monts water maxe Cypen field test EPM	WT vehick vs HT vehicka vs WT ngempen vs HT ngeorgen (5 ng/kg) WT vehick vs HT vehicka vs WT ngempen vs HT ngempen (5 ng/kg)	male Male	7.6 weeks	WT vehicle = 10 sload 5 mice. WT vehicle = 13 sload 5 mice. HT apartycin = 13 sload 5 mice. HT apartycin = 15 sload 7 mice. WT vehicle = 16 mice. HT apartycin = 15 sload 7 mice. HT apartycin = 15 mice.	Happocampue 100 Jar. Shin Happocampue 100 Jar. Shin Happocampue (s) Latency to escape (s) Number of crossing (court) Summing speet (smit) Total distance moved (m) Total distance moved (m)	Tailing Tailing Public test Open Close	Day 1 Day 2 Day 3 Day 4 Day 5 Day 5 Some Second Sec	OFF Cerc 4.044 x11(80) VT quantyme 1.912 x13 HT quantyme 1.912 x13 VT vehicle - 1514 x12 VT quantyme 1.913 x17 VT quantyme 1.913 x17 VT quantyme 2.914 x13	Two-way ANOVA Bortemort's multiple comparison test Bortemort's multiple comparison test Bortemort's multiple comparison test Done-way ANOVA Bortemort's multiple comparison test Bortemort's multiple comparison test Bortemort's multiple comparison test Bortemort's multiple comparison test Bortemort's multiple comparison test	$p = 0.0001, ^{**}$ Will watches with regarding = 0.0005, Will regarding = 0.0005,	(10) = 6.432 presention (F1, 47) = (F1, 67) = 1546 (F2, 7) = 1546 Treatment (F1, 7) = Hearaction (F12, 712) Treatment (F1, 61) = Treatment (F1, 63) = Resention (F10, 63) = Resention (F10, 53) = Re	$\begin{array}{c} 1 \\ 220, p = 0.260, \\ 500, p = 0.0007 \end{array} \\ \hline 1 = 1500, p = 0.0007 \\ 3.210, p = 0.0007 \end{array} \\ \hline 3.210, p = 0.0007 \\ \hline 3.210, p = 0$
3	c c	Electophysiobgy (c.cat field currer clamp) Montis water maze Open field test EPM	WT which is HT which is W manipune is HT manipune mp ¹ /m ²	mak Mak	7.8 weeks	WT vehicle = 10 sizes / 5 mice WT vehicle = 14 sizes / 5 mice HT apartych = 14 sizes / 5 mice HT apartych = 15 sizes / 7 mice WT vehicle = 15 mice WT vehicle = 16 mice WT paperych = 14 mice WT paperych = 18 mice WT paperych = 18 mice	Hepponsmpus (100 kt, deln Heff LTP (k) Latency to escape (s) Number of crossing (court) Swimming speed (cmk) Total distance moved (m) Teme sport in am (s)	Training Probe lost Coor Close	Day 1 Day 2 Day 3 Day 4 Day 5 Day 5 do ninaes am	OFF Cons. 10.44 (s11)(20) OFF Cons. 10.44 (s11)(20) OFF Cons. 10.44 (s11)(20) OFF Cons. 10.44 (s11)(20) OFF Cons. 10.45 (s11)(20) <td>Two-way ANDVA Bonferror's malagie companiton test Bonferror's malagie companiton test Bonferror's malagie companiton test Done-way ANDVA Bonferror's malagie companiton test Done-way ANDVA Bonferror's malagie companiton test Done-way ANDVA Bonferror's malagie companiton test Done-way ANDVA Bonferror's malagie companiton test</td> <td>p = 0.000, *** With earliest and the second secon</td> <td>(10) - 6.42 Interaction F(1, 27) - F(1, 27)</td> <td>420, p = 0.0409 Tar 420, p = 0.0409 Tar 5.000, p = 0.0397 1.1.900, p = 0.0390 1.2.24, p = 0.0390 1.2.24, p = 0.0390 1.2.24, p = 0.0302 2.200, p = 0.0302 2.200, p = 0.0302 2.201, p = 0.0302</td>	Two-way ANDVA Bonferror's malagie companiton test Bonferror's malagie companiton test Bonferror's malagie companiton test Done-way ANDVA Bonferror's malagie companiton test Done-way ANDVA Bonferror's malagie companiton test Done-way ANDVA Bonferror's malagie companiton test Done-way ANDVA Bonferror's malagie companiton test	p = 0.000, *** With earliest and the second secon	(10) - 6.42 Interaction F(1, 27) - F(1, 27)	420, p = 0.0409 Tar 420, p = 0.0409 Tar 5.000, p = 0.0397 1.1.900, p = 0.0390 1.2.24, p = 0.0390 1.2.24, p = 0.0390 1.2.24, p = 0.0302 2.200, p = 0.0302 2.200, p = 0.0302 2.201, p = 0.0302
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3	6 c	Electophysiobgy (c.cel field currer clamp) Montis water maze Open field test EPM	WT website is MT website is WT equanyours is HT equanyon (a) (a) (b) (b) (b) (b) (b) (b) (b) (b) (b) (b	Male	7.8 weeks 2.4 months 7.8 weeks	WT vehicle = 10 sizes / mice WT vehicle = 10 sizes / mice HT spannych = 14 sizes / mice HT spannych = 15 sizes / mice WT vehicle = 15 mice WT vehicle = 15 mice WT spannych = 15 mice WT spannych = 15 mice WT spannych = 15 mice WT spannych = 16 mice WT spannych = 10 mice HT spannych = 10 mice	Heppocampus (10) Hz, defin HPB LTP (s) Latency to escape (s) Latency to escape (s) Number of crossing (court) Stumming speed (oms) Total distance moved (m) Time speer in arm (s)	Training Polie lest Clear Clea	Day 1 Day 2 Day 3 Day 3 Day 4 Day 5 Day 5 do not data tarm tarm tarm tarm tarm tarm tarm t	OFF Cen. 104 4 11 (80) OFF Cen. 104 1 11 (11 (11 (11 (11 (11 (11 (11 (11 (Two-way ANOVA Boofernoris malagie comparison set Boofernoris malagie comparison set Boofernoris malagie comparison set Boofernoris malagie comparison set Done way ANOVA Boofernoris malagie comparison set Done way ANOVA Boofernoris malagie comparison set Done way ANOVA Boofernoris malagie comparison set	P - 0007. *** With even share the second s	(10) = 6.42 meansion (71, 47) = 7 Treatmost (71, 27) = 7 Margacian (71, 27)	4202 p = 0.0500 5 000 p = 0.0000 5 000 p = 0.0000 1 2 2 4 0 p = 0.0000 2 2 4 0 p = 0.00000 2 2 4 0 p = 0.0000 2 2 4 0 p
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3	6 6 8	Electophysiobay (c.cat field currer champ) Monts water maze Copen Red test EPM	WT which is HT which is WT nampcin is HT mampoin [5 ng/kg] WT which is HT makes is HT makes in the second second second second makes in the second second second second second makes in the second second second second second second second makes in the second seco	Male	7.8 weeks 2.4 months 7.8 weeks	WT velicle = 10 sizes / moc WT velicle = 10 sizes / mice WT velicle = 10 sizes WT velicle = 10 sizes	Hopocampus (10) M, dein HPB LTP (k) Latency to escape (s) Latency to escape (s) Number of crossing (court) Semming speed (omk) Total distance moved (m) Time spert in am (s) pertQSANDOR levels in untersease pertQRentOR	Trailing Pobe less Ope Close Close	Day 1 Day 2 Day 3 Day 3 Day 4 Day 5 Day 5 Day 5 dam dam dam dam dam dam taganya 14 Rapanya 10 da	OP -0.64 4 11 (20) OP -0.64 1 2 2 - 3.3 IPT quadruck - 15 4 - 2.7 -0.74 1 4 1 - 2.74 1 - 74 1 - 74 1 - 2.74 1 - 2.74 1 - 2.74 1 - 74 1 - 74 1 - 2.74 1 - 2.74 1 - 74	Two-way ANDVA Exoference's multiple comparison test Exoference's multiple comparison test Exoference's multiple comparison test Exoference's multiple comparison test Cros-way ANDVA Exoference's multiple comparison test	p = 0.000, ··· WT websics with Twendon, p = 0.0005, WT WT websics with Websics, m, WT websics, m, WT websics WT websics with Websics, m, WT websics, m, WT websics WT websics with WEBsics, m, WT websics	(10) = 6.42 Interaction (71, 47) = 7 Treatmost (71, 47) = 7 Treatmost (71, 47) = 7 Treatmost (71, 212) Interaction (71, 212) Intera	$\begin{array}{c} 1 \\ 2,202, p = 0.0400 \\ 5.005, p = 0.0007 \\ 3.250, p = 0.0002 \\ 3.254, p = 0.0002 \\ 3.254, p = 0.0002 \\ 2.260, p = 0.0002 \\ 2.260, p = 0.0002 \\ 2.260, p = 0.0002 \\ 3.260, p = 0.00$
3	6 c	Exclophysiology (c.ce field currer clamp) Monts water maze Open field test EPM	WT vehick vs HT vehick vs WT repanycins HT aparton (F ng/mg/sins HT vehick vs HT vehick vs HT vehick vs HT repanycins HT vehick vs HT vehick vs HT repanycins HT vehick vs HT vehick vs HT repanycins HT vehick vs HT v	Mak	2.4 months 7.6 weeks	WT velocie = 10 scienci 7 mice IT aparamycin = 14 skood 6 mice HT aparamycin = 15 skood 7 mice WT velocie = 16 mice WT repartych = 15 mice WT apartych = 15 mice WT apartych = 15 mice WT apartych = 15 mice WT apartych = 16 mice	Happocampus, 100 Hz, Shin Hird Life (s) Latency to escape (s) Latency to escape (s) Number of crossing (court) Summing speed (onli) Total distance moved (m) Total distance moved (m) These spent in arm (s) PeriOSI/INTOR levels in HECG3 and the momandeed to untenande periOSI/INTOR levels in HECG3 and the momandeed to	Training Training Probe test Ope Close Close penTORIENTOR	Day 1 Day 2 Day 3 Day 4 Day 5 Day 5 Day 5 Day 5 dam dam	0.00 0.01 <td< td=""><td>Two-way ANDVA Bonferrori's malpip comparison test Bonferrori's malpip comparison test Doe-way ANDVA Bonferrori's malpip comparison test Cree-way ANDVA Bonferrori's malpip comparison test Cree-way ANDVA Bonferrori's malpip comparison test</td><td>$P = 0.0001, ^{-10}$ Will vestice with regarding a = 0.0005, Will regarding a = 0.0005, Will vestice with regarding a = 0.0005, Will vestice with regarding a = 0.0005, Will vestice with regarding a = 0.0005, Will regardi</td><td>(10) = 6.42 meansion (71, 47) = (71, 67) =</td><td>4202 p = 0.0000 5.000 p = 0.0000 1.000 p = 0.0000 1.000 p = 0.0000 1.000 p = 0.0000 2.000 p = 0.0000 3.200 p = 0.00000 3.200 p = 0.000000 3.200 p = 0.00000 3.200 p</td></td<>	Two-way ANDVA Bonferrori's malpip comparison test Bonferrori's malpip comparison test Doe-way ANDVA Bonferrori's malpip comparison test Cree-way ANDVA Bonferrori's malpip comparison test Cree-way ANDVA Bonferrori's malpip comparison test	$P = 0.0001, ^{-10}$ Will vestice with regarding a = 0.0005, Will regarding a = 0.0005, Will vestice with regarding a = 0.0005, Will vestice with regarding a = 0.0005, Will vestice with regarding a = 0.0005, Will regardi	(10) = 6.42 meansion (71, 47) = (71, 67) =	4202 p = 0.0000 5.000 p = 0.0000 1.000 p = 0.0000 1.000 p = 0.0000 1.000 p = 0.0000 2.000 p = 0.0000 3.200 p = 0.00000 3.200 p = 0.000000 3.200 p = 0.00000 3.200 p
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3	b c d	Electorphysiology (c.c.et field curren champ) Monte water maxe Open field test EPM	WT vehick vs HT vehicka vs WT newnych vs HT extension (F nghlig) WT vehick vs HT vehicka vs WT newnych vs HT vehicka vs WT newnych vs HT vehicka vs WT newnych vs HT vehicka vs WT	Mak	7.4 weeks	WT whick = 10 sizes 7 mice WT which = 14 sizes 7 mice HT apartycin = 14 sizes 7 mice HT apartycin = 15 sizes 7 mice WT which = 15 mice	Hepocampus 100 Hz, Shin Hepocampus 100 Hz, Shin Hill LTP (%) Latency to escape (s) Number of crossing (court) Satimming speed (cm/s) Total distance moved (m) Total distance moved (m) Time spert in am (s) PerfOSLINITION basis / in urbanded perfORINTOR perfOSLINITION basis / in urbanded perfORINTOR	Такод Такод Роделая Ора Сос Сос Сос Сос Сос Сос Сос Сос Сос Сос	Image: Day 1 Day 2 Day 3 Day 4 Day 5 Day 5 Day 5 Day 5 dam Tage 7 model	0.77 1.16.10 0FP-Cen 1.06.4 0FP-Cen 1.06.4 VT velocies 1.96.5 VT velocies 1.96.5 1FT georgics 1.96.5 VT velocies 1.96.5 1FT georgics 1.96.3 VT velocies 1.96.2 1FT georgics 2.96.2 VT velocies 1.96.2 VT velocies 2.96.2 VT velocies	Two-say ANDVA Bonferroris makele comparison test Bonferroris makele comparison test Dre-way ANDVA Bonferroris makele comparison test	$p = 0.0001, ^{-10}$ With variation is if Transition p = 0.0005, With which is if Transition is the transition of the transition is if Transition is the transition of the transition of the transition with the transition of transition is in the transition of the transition of transition of the transition of the transition of transition of the transition of the transition of transition of the transition of transition of the transition of transi	(10) = 6.42 Hearaction F(1, 27) = 7 Treatmost F(1, 27) = 7 Treatmost F(1, 27) = 7 Treatmost F(1, 217) Hearaction F(1, 217) He	4.202 p = 0.0400 Ta 4.202 p = 0.0007 Ta 5.005 p = 0.0007 Ta 1.206 p = 0.0007 3.210, p = 0.0001 3.210, p = 0.0002 2.002, p = 0.0002 2.002, p = 0.0002 2.002, p = 0.0002 3.209, p
3	b c d	Electophysiobgy (Load field curver champ) Montis water maze Cipen field test EPM	WT velicle vs WT velicle vs WT estampion is HT estampion mg/kg/ WT velicle vs HT estampion Balance is the standard of the standard of the standard of the standard of the standard of the stan	Mak	7.8 weeks 2.4 months 7.8 weeks	WT velicle = 10 sizes 7 mice WT velicle = 10 sizes 7 mice HT spannych = 14 sizes 6 mite HT spannych = 15 sizes 7 mice WT spannych = 15 mice WT spannych = 15 mice WT spannych = 15 mice WT spannych = 15 mice HT spannych = 1	Heppocampus (100 ks. 6min Heppocampus (100 ks. 6min kr8 LTP (h) Latency to escape (s) Number of crossing (court) Summing speed (cmis) Total distance moved (m) Total distance moved (m) Time speer in arm (s) DemTOR/ImTOR loads in HECK30 ks. comparison loads (somatized by unesseed p. 95858 lises in HECK30	Training Training Polie leat Cleas Cleas p.mTORINTOR p.4658	Day 1 Day 2 Day 3 Day 4 Day 5 Day 5 Day 5 So minas am d am turner	OFP-Car 0.64 × 11 (80) VT relation + 150 ± 2.33 117 approximation + 151 ± 2.33 VT relation + 61 ± 2.23 117 relation + 61 ± 2.23 VT relation + 61 ± 2.23 117 relation + 62 ± 5.2 VT relation + 62 ± 5.2 117 relation + 62 ± 5.2 VT relation + 22 ± 5.2 117 relation + 22 ± 5.36 VT relation + 22 ± 5.2 117 relation + 23 ± 5.2 VT relation + 22 ± 5.3 117 relation + 23 ± 5.3 VT relation + 22 ± 5.3.6 117 relation + 23 ± 5.3 VT relation + 23 ± 5.3.2 117 relation + 23 ± 5.3.6 VT relation + 23 ± 5.3.2 117 relation + 23 ± 5.3.1 VT relation + 23 ± 5.3.2 117 relation + 23 ± 5.3.1 VT relation + 13 ± 6.1 117 relation + 13 ± 6.2 VT relation + 13 ± 6.1 117 relation + 13 ± 6.2 VT relation + 15.6 ± 1.10 117 relation + 15.6 ± 1.10	Two-way ANDVA Borferrori's malpip comparison test Borferrori's malpip comparison test Borferrori's malpip comparison test Borferrori's malpip comparison test Dome way ANDVA Borferrori's malpip comparison test	$p = 0.0001, ^{-10}$ Will wellkow in YT wellkow, $p = 0.0005, Will wellkow in YT wellkow, p = 0.0005, Will wellkow in YT wellkow, p = 0.0005, Will wellkow in YT wellkow, p = 0.0005, Will wellkow in YT wellkow, will well wellkow in YT we$	(10) = 6.42 meansion (71, 47) = 7 Treatmost (71, 47) = 7 Treatmost (71, 47) = 7 Treatmost (71, 27) = 7 Treatmost (71, 27) = 7 Treatmost (71, 27) = 7 Treatmost (71, 27) = 7 Herraction (71, 28) = 7 Herraction (71, 29) = 7 Herraction (71,	4202 p = 0.0200 5 000 p = 0.0200 5 000 p = 0.0200 1 = 1000 p = 0.0200 1 = 1000 p = 0.0200 2 = 0.0000 2 = 0.00000 2 = 0.0000 2 = 0.0000 2 = 0.00000 2 = 0.0000 2 = 0
3	6 6 8	Escophysiology (cost field currer clamp) Monts water maze Cipen field test EPM	WT velicle vs HT velicle vs WT nglengelve HT eggengels regels WT velicle vs HT velicle vs WT squary ov 1 HT velicle vs WT squary ov 1 HT velicle vs WT		2.4 months 2.4 months 7.6 seels	WT vehicle = 10 sizes 7 mice 11 apartysis = 14 sizes 6 mice 11 apartysis = 15 sizes 7 mice WT vehicle = 16 mice WT apartysis = 15 mice WT apartysis = 15 mice HT apartysis = 16 mice WT apartysis = 16 mice	Higocampa, 100 Hz, 5mn Higocampa, 100 Hz, 5mn Hig LTP (n) Latercy to escape (n) Number of crossing (court) Dumming speed (mil) Total dataces moved (m) Time spert in am (n) pr-FOGUNTOR levels in HEX233 colls momented by preSGS levels in VEX234 p. 5GSS levels in HEX234	Pobe lost Pobe lost Close p.mTORIMTOR p.56956	Lony 1 Day 2 Day 3 Day 4 Day 5 Day 5 Day 6 Out 9 Day 6 dominates tarm Lander PageTracit, Pa	OP 0.64 4 11 (80) OFP-Cen 0.64 4 11 (80) OFP-Cen 0.64 4 11 (80) OFP-Cen 0.95 5.79 HT quarking 195 5.79 1.91 7.80 HT quarking 191 3.76 1.91 7.80 WT quarking 191 3.76 1.91 7.91 WT quarking 191 3.76 1.91 7.91 WT quarking 191 3.76 1.91 7.91 WT quarking 191 3.71 1.92 1.91 7.91 WT quarking 2.18 1.91 1.91 7.91 WT quarking 2.18 1.91 1.91 7.91 WT quarking 2.18 1.92 1.91 9.91 WT quarking 1.91 9.92 1.91 9.91 WT quarking 1.92 9.10 9.91	Teo-sey ANO/A Eorferon's matrix comparison test Cole-sey ANO/A Eorferon's matrix comparison test	$P = 0.0001, ^{-10}$ Will version with regarding to a 0.0005, with which will write regarding to a 0.0005, with write regarding to a 0.0005, with weaks with regarding to a 0.0005, with weaks with write regarding to a 0.0005, with weaks with regarding to a 0.0005, with regarding to a 0.0005, with regarding to a 0.0005, with regarding to 0.0005, with regarding to to	(10) = 6.42 meansion (71, 47) =	4202 p = 0.0200 5.000 p = 0.0200 5.000 p = 0.0200 175 p = 0.0200 175 p = 0.0200 175 p = 0.0200 2260 p = 0.0414 2.000 p = 0.1002 2.000 p = 0.1002 2.000 p = 0.1002 3.200 p = 0.0070 3.200 p = 0.0070 3.200 p = 0.0070 0.0001
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3	b c d a	Exclophysiology (c.ce field currer clamp) Monto water maze Open field test EPM Western bioting Invitro kinase assay	WT vehick vs HT vehick vs WT reparticities HT againspaces (F mg/kg) WT vehick vs HT vehicka vs WT reparticities HT vehicka v	Make	2.4 months 2.4 months	MT vehicle = 10 sizes 7 mice Tri papangini = 14 sizes 6 mice HT apartych = 15 sizes 7 mice WT vehicle = 16 mice WT repartych = 15 mice HT apartych = 15 mice WT apartych = 15 mice WT apartych = 15 mice HT apartych = 16 mice WT apartych = 16 mice WT apartych = 16 mice HT vehicle = 16 mice WT apartych = 15 mice HT vehicle = 16 mice WT apartych = 16 mice WT apartych = 16 mice WT apartych = 16 mice WT apartych = 16 mice HT vehicle = 16 mice WT apartych = 15 mice HT vehicle = 15 mice HT vehicle = 15 mice HT vehicle = 15 mice HT vehicle = 16 mice WT apartych = 15 mice	Happocampus, 100 Hz, Shini Hird Life (N) Latercy to escape (s) Latercy to escape (s) Number of crossing (court) Swimming speed (only) Total distance moved (m) Total distance moved (m) Court distance distance moved (m) Court distance distance distance moved (m) Court distance distance distance distance moved (m) Court distance distanc	Тайна Тайна Робе вая Ора Сбая Сбая Сбая Сбая	am Uters of the second	0.000 0.000 0.000 0FP-Cen 0.000 0.000 0FP-Cen 0.000 0.000 VT quantities 19.0 5.000 1FT quantities 19.0 5.000 VT velocies 0.100 2.000 VT velocies 0.000 2.000 VT velocies 0.000 2.000 VT velocies 2.000 2.000 VT velocies 2.000 1.000 VT velocies 2.000 1.000 VT velocies 2.000 1.000 VT velocies 2.000 2.000 VT velocies 2.000 2.000 VT velocies 2.000 2.000 VT velocies 2.000 2.000 VT velocies 2.000 2.000 <td>Transard ANDVA Bonferroris matigie comparison test Bonferroris matigie comparison test Bonferroris matigie comparison test Bonferroris matigie comparison test Doe-way ANDVA Bonferroris That y a The set of the se</td> <td>$\begin{array}{c} \rho = 0.0001, \ ^{1} \\ \hline \end{tabular} & \end{tabular}$</td> <td>(10) = 6.422 meansion (71, 47) = (71, 67) =</td> <td>4.202, p = 0.0450 5.002, p = 0.0257 1.002, p = 0.0257 17, p = 0.0257 17, p = 0.0257 2.004, p = 0.0257 2.004, p = 0.0057 2.004, p = 0.0057 2.004, p = 0.0057 2.007, p = 0.0057 2.007, p = 0.0057 0.0001 0.0001 0.0001</td>	Transard ANDVA Bonferroris matigie comparison test Bonferroris matigie comparison test Bonferroris matigie comparison test Bonferroris matigie comparison test Doe-way ANDVA Bonferroris That y a The set of the se	$ \begin{array}{c} \rho = 0.0001, \ ^{1} \\ \hline \end{tabular} & \end{tabular}$	(10) = 6.422 meansion (71, 47) = (71, 67) =	4.202, p = 0.0450 5.002, p = 0.0257 1.002, p = 0.0257 17, p = 0.0257 17, p = 0.0257 2.004, p = 0.0257 2.004, p = 0.0057 2.004, p = 0.0057 2.004, p = 0.0057 2.007, p = 0.0057 2.007, p = 0.0057 0.0001 0.0001 0.0001
3	6 6 8	Biotophysiology (Local field curren charge) Monte water mase Open field test EPM Western bioting Invites kinese assay (Vestern bioting)	WT vehick vs HT vehicks vs WT neuropcink HT neuropcin ngknjich vs HT vehicka vs WT neuropcink HT neuropcin NF vehick vs HT vehicka vs WT neuropcink HT neuropcin (5 ngknji)	Mak	7.6 seeks	WT which = 10 store 5 mice WT which = 14 store 5 mice WT which = 15 store 7 mice WT which = 16 mice WT which = 10 store 7 mice WT which = 10	Happocanopic 100 Jac. Shin Happocanopic 100 Jac. Shin Happocanopic 100 Jac. Shin Latercy to escape (s) Latercy to escape (s) Muncher of chossing (court) Summing space (cm3) Total distance moved (m) Title distance moved (m) Title distance moved (m) Title distance moved (m) Profile Micro Hawkin Profile Micro Hawkin Profile Shin Shin Hardoog Distance and the constant Shin Shin Shin Shin Shin Shin Profile Hardoo Hawkin Profile Hardoo Hardoo Hardoo Profile Hardoo Hardoo	Trailing Public last Que Close Close p=nTORINTOR p.95556	Day 1 Day 2 Day 3 Day 3 Day 4 Day 5	0.000 0.000 0.000 0FP Cen 0.000 <	Teo-way ANO/A BorferrorS matigle comparison test Teo-way ANO/A BorferrorS ANO/A BorferrorS MUKPA	$ p = 0.0001, ^{-10} \\ W = which we still equipace the second se$	(10) = 6.432 protocolor (71, 47) = (71, 47	4.202, p = 0.0450 5.000, p = 0.0277 3.210, p = 0.0272 3.210, p = 0.0272 3.210, p = 0.0272 2.260, p = 0.0272 2.260, p = 0.0272 2.260, p = 0.0272 2.260, p = 0.0272 3.210, p = 0.
3	b c d a	Electophysiology (Local field current champ) Monte water maze Open field test EPM Western blotting	WT which vs MT which vs WT neuropein vs HT equippien (5 ng/kg) wt restau vs HT values vs WT equippien vs HT values vs WT equippien vs HT equippien (5 mg/kg)	Mak	7.8 weeks 2.4 months 7.8 weeks	WT which = 10 sizes / 5 mice WT which = 14 sizes / 6 mice HT apartych = 14 sizes / 7 mice WT which = 15 mice WT which = 10	Heppocampus (100 kit, delin Heppocampus (100 kit, delin Heppocampus (100 kit, delin Latercy to escape (s) Number of crossing (court) Selemening speed (amk) Total distance moved (m) Total distance moved (m) Time spert in am (s) Profile Movies in Heritage Profile Mo	Тайор Роде на Ора Сос Сос Сос Сос Сос Сос Сос Сос Сос Сос	Day 1 Day 2 Day 3 Day 4 Day 5 Day 5 Day 5 Day 6 am dam Chean Reparator Reparator Reparator Reparator Reparator Am FORCE Reparator Context Reparator Reparator Am FORCE Context Reparator Sector Sector <t< td=""><td>OPI-Car 0.64 × 11 (80) OFP-Car 1.96 × 57 IfT quantysis 1.91 × 3.75 1.91 × 57 IfT quantysis 1.91 × 3.75 1.91 × 57 IfT quantysis 0.51 × 6.1 × 2.35 1.91 × 577 × 2.56 IfT quantysis 0.57 × 2.56 1.91 × 577 × 2.56 IfT quantysis 0.577 × 2.56 1.91 × 577 × 2.56 IfT quantysis 0.577 × 2.56 1.91 × 7.91 × 577 × 3.56 IfT quantysis 0.577 × 2.56 1.91 × 7.91 × 577 × 3.56 IfT quantysis 0.577 × 2.56 × 3.57 × 3.56 1.91 × 7.91 × 577 × 3.56 IfT quantysis 0.577 × 3.56 × 3.57 × 3.56 1.91 × 7.91 × 577 × 3.56 IfT quantysis 0.56 × 2.57 × 3.56 1.91 × 7.71 × 6.56 × 3.57 × 3.56 IfT quantysis 0.56 × 2.57 × 3.56 1.91 × 7.71 × 6.56 × 7.71 × 6.56 IfT quantysis 0.56 × 2.57 × 3.56 1.91 × 7.71 × 6.56 × 7.71 × 6.56 IfT quantysis 0.51 × 3.50 × 3.50 × 7.71 × 6.56 × 7.71 × 6.56 × 7.71 × 6.56 × 7.71 × 7.56 IfT quantysis 0.50 × 3.50 × 7.50 × 7.56 1.91 × 7.726 IfT quantysis 0.50 × 6.50 × 7.726 1.91 × 7.726 IfT quantysis 0.50 × 6.50 × 7.726</td></t<> <td>Eveneraria malgie comparison seat Eveneraria malgie comparison seat Two-way AND/A spostated measurers Eveneraria malgie comparison seat Eveneraria malgie comparison seat Eveneraria malgie comparison seat Com-way AND/A Eveneraria malgie comparison seat Com-way AND/A Eveneraria malgie comparison seat Eveneraria malgie comparison seat</td> <td>p = 0.0001, *** WY exists of VT exists, p = 0.0005, WY exists,</td> <td>$\begin{split} q(t) &= 6.422 \\ &= & \\ &=$</td> <td>4.202, p = 0.046 5.002, p = 0.007 3.002, p = 0.007 3.210, p = 0.007 2.240, p = 0.007 2.240, p = 0.000 2.240, p = 0.0000 2.240, p = 0.0000 2.240, p = 0.0000 2.240, p</td>	OPI-Car 0.64 × 11 (80) OFP-Car 1.96 × 57 IfT quantysis 1.91 × 3.75 1.91 × 57 IfT quantysis 1.91 × 3.75 1.91 × 57 IfT quantysis 0.51 × 6.1 × 2.35 1.91 × 577 × 2.56 IfT quantysis 0.57 × 2.56 1.91 × 577 × 2.56 IfT quantysis 0.577 × 2.56 1.91 × 577 × 2.56 IfT quantysis 0.577 × 2.56 1.91 × 7.91 × 577 × 3.56 IfT quantysis 0.577 × 2.56 1.91 × 7.91 × 577 × 3.56 IfT quantysis 0.577 × 2.56 × 3.57 × 3.56 1.91 × 7.91 × 577 × 3.56 IfT quantysis 0.577 × 3.56 × 3.57 × 3.56 1.91 × 7.91 × 577 × 3.56 IfT quantysis 0.56 × 2.57 × 3.56 1.91 × 7.71 × 6.56 × 3.57 × 3.56 IfT quantysis 0.56 × 2.57 × 3.56 1.91 × 7.71 × 6.56 × 7.71 × 6.56 IfT quantysis 0.56 × 2.57 × 3.56 1.91 × 7.71 × 6.56 × 7.71 × 6.56 IfT quantysis 0.51 × 3.50 × 3.50 × 7.71 × 6.56 × 7.71 × 6.56 × 7.71 × 6.56 × 7.71 × 7.56 IfT quantysis 0.50 × 3.50 × 7.50 × 7.56 1.91 × 7.726 IfT quantysis 0.50 × 6.50 × 7.726 1.91 × 7.726 IfT quantysis 0.50 × 6.50 × 7.726	Eveneraria malgie comparison seat Eveneraria malgie comparison seat Two-way AND/A spostated measurers Eveneraria malgie comparison seat Eveneraria malgie comparison seat Eveneraria malgie comparison seat Com-way AND/A Eveneraria malgie comparison seat Com-way AND/A Eveneraria malgie comparison seat	p = 0.0001, *** WY exists of VT exists, p = 0.0005, WY exists,	$\begin{split} q(t) &= 6.422 \\ &= & \\ &= $	4.202, p = 0.046 5.002, p = 0.007 3.002, p = 0.007 3.210, p = 0.007 2.240, p = 0.007 2.240, p = 0.000 2.240, p = 0.0000 2.240, p = 0.0000 2.240, p = 0.0000 2.240, p
3	b c d	Excloping/sology (c.ce field currer clamp) Monto water maze Open field test EPM Western bioting In vitio kinase assay (Western bioting)	WT website in MT website reparaport is MT website mpting m	Male	7.8 weeks 2-4 months 7.6 weeks	WT velicle = 10 sizes 7 mice WT velicle = 10 sizes 7 mice HT spannych = 14 sizes 6 mice WT velicle = 16 mice WT velicle = 16 mice WT spannych = 15 mice HT spannych = 15 mice HT spannych = 19 mice HT spannych = 10 mice HT	Happocampus, 100 Hz, Shin High Life (N) Latercy to escape (s) Latercy to escape (s) Number of crossing (court) Total detance moved (m) Total detance moved (m) Total detance moved (m) Total detance moved (m) Court (court) Total detance moved (m) Court (court) Total detance moved (m) Court (court) Total detance moved (m) Court (court) Court (court) Court (court) Number (court) Court (court) Possible levels normalized to miCOSC. BK, and Possible levels normalized to miCOSC. BK, and Court (court) Court (c	Training Training Polie Iost Ope Close p=rtORINTOR p=0556	Day 1 Day 2 Day 3 Day 4 Day 5 Day 6 Day 7	OP 1.04 4 4 11 (80) OFP-Cov 0.64 4 11 (80) OFP-Cov 1.04 4 11 (80) VT velocies 1.98 5.79 HT quantycis 1.98 5.79 HT quantycis 1.98 5.79 HT quantycis 1.91 5.70 VT velocies 1.91 5.70 VT velocies 1.91 5.70 VT velocies 1.91 7.80 VT velocies 1.91 7.80 VT velocies 1.91 7.80 VT velocies 2.92 7.1.80 VT velocies 2.93 1.4.31 VT velocies 2.93 1.4.31 VT velocies 2.93 1.4.30 VT quantycies 2.94 1.4.31 VT quantycies 2.94 1.4.31 VT quantycies 2.94 2.4.31 VT quelocies 2.93 2	Two-way AND/A Borferror's mappic comparison test Two-way AND/A Borferror's mappic comparison test Borferror's mappic comparison test Doe-way AND/A Borferror's mappic comparison test Doe-way AND/A Borferror's mappic comparison test One-way AND/A Borferror's mappic comparison test One-way AND/A Borferror's mappic comparison test One-way AND/A Borferror's mappic comparison test Doe-way AND/A Borferror's mappic comparison test One-way AND/A Borferror's mappic comparison test Doe-way AND/A Borferror's mappic comparison test	$ p = 0.0001, ^{-10} \\ W = which is with regardly a p = 0.0005, W \\ which is with regardly a regar$	(10) = 6.422 meansion (71, 47) =	4202 p = 0.000 1200 p = 0.000 100 p = 0.000 1200 p = 0.000 2200 p = 0.000 200 p = 0.0000 200 p = 0.0000 200 p = 0.0000 200 p = 0.0000
3	6 6 8	Escophysiology (cost field curver clamp) Monts water mase Open field test E PM Western blotting Dr.vtto kinase atskey (Viewson blotting)	WT velick vs HT velicka vs WT ngempetivs HT ngempetivs II ngempetivs HT ngempeti NG velick vs HT velicka vs WT ngempetivs HT vs WT ngempet	Mate	7.6 seels	УТ чейса – 19 кол 7 люс	Happocampue 100 Jac. Shin Happocampue 100 Jac. Shin Happocampue 100 Jac. Shin Hamilton (Shin Hamilton) Latency to escape (n) Number of crossing (court) Summing space (cmil) Guinning space (cmil) Total distance moved (m) Total distance moved (m) Total distance moved (m) Total distance moved (m) Court (Childron) Proton haves normalized to pedification of the scale pedification of the scale of the scale pedification of the scale of the scale of the scale pedification of the scale of the scale of the scale pedification of the scale of the scale of the scale of the scale pedification of the scale of t	Taring Taring Publics Publics Close Close p=nTORINTOR p=6656	Lony 1 Day 2 Day 3 Day 4 Day 5 Day 5 Day 5 Day 5 Day 6 Day 7 Day 7 Day 6 Day 7 Day 7 Day 6 Day 7 Day 7<	UP 1.16 (1) UP 1.64 (4.11) (80) UP 1.64 (4.11) (70)	Teo-way ANO/A Eorferon's matrix comparison test Cole-way ANO/A Eorferon's matrix comparison test	$ p = 0.0001, ^{-10} \\ W = which is write it regardly a = 0.0005, W \\ W = which is write it regardly a = 0.0005, W \\ which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W which is write it regardly a = 0.0017, W write it write it regardly a = 0.0017, W write it write it regardly a = 0.0017, W write it write it regardly a = 0.0017, W write it write it regardly a = 0.0017, W write it write it regardly a = 0.0017, W write it write it regardly a = 0.00017, W write it write it regardly a = 0.00017, W write it write it regardly a = 0.00017, W write it write it regardly a = 0.00017, W write it write it regardly a = 0.00017, W write it write it regardly a = 0.00017, W write it write it regardly a = 0.00017, W write it write it regardly a = 0.00017, W write it write it regardly a = 0.00017, W write it write it regardly a = 0.00017, W write it write it regardly a = 0.00017, W write it write $	(10) = 6.422 meansion (71, 47) =	4.202, p = 0.0400 1.4.202, p = 0.0207 1.4.202, p = 0.0207 1.4.202, p = 0.0207 2.202, p = 0.0202 2.202,

I.	1 -	(Western blotting)	1	I	I.	1	I	I	MICKC ARATP	1 39 + 0 26 (SD)	1	1	1	
						n=3	Protein levels normalized to mTORC, S6K, and ATP		mTORC Akt mTORC Akt ATP	0.41 ± 0.05 (SD) 1.00 ± 0.00 (SD)	One-way ANOVA Bonferron's multiple comparison test	mTORC Akt vs mTORC Akt ATP, p<0.0001; mTORC Akt ATP vs mTORC	F(2, 6) = 204.6, p < 0.	0001
				1			(Fold change)		Treed	0.76 ± 0.02 (SD)		Ast ATP Tanc2, p = 0.0006, ***		
	а	Confocal microscopy				n+24 cells	Pearson's correlation coefficient between CFP- Tarc2 and VEP-mTOP		+serum -serum 4 hr +serum 4 hr	0.27±0.02 0.66±0.02 0.61±0.02	One-way ANOVA Bonferroni's multiple comparison test	vs +serum 4hr, p < 0.0001; +serum vs +serum 24hr, p > 0.9999; -serum 4 hr vs +serum 4 hr, p = 0.8761; -serum 4 hr vs	F(3, 92) = 60.12, p < 0	0.0001
								Makinta	+serum 24 hr +serum	0.32±0.02 0.23±0.02	Chudrafa i insi	+serum 24 hr, p < 0.0001; +serum 4hr vs +serum 24hr, p < 0.0001		Two to bad
	ь	Confocal microscopy				n=24 cells	Pearson's correlation coefficient between CFP- Tanc2 and YFP-mTOR	Rapamyoin	-serum 4 hr +serum	0.65 ± 0.02 0.29 ± 0.02	Student's t-test	p = 0.5988, ns	t(46) = 11:17	Two-tailed
	c	Colmmunoprecipitation				n=4	mTOR/Tanc2 ratio in		-serum 4 hr Serum +	0.31±0.02 1.00±0.00 (SD)	Student's t-test	p = 0.0158, *	t(6) = 3.329	Two-tailed
		Coloresession					-TOD/Tess2 sale is	Vehicle	+serum -	2.15±0.34 (SD) 1.00±0.00 (SD) 2.18±0.04 (SD)	Student's t-test	p < 0.0001, ***	t(4) = 29.66	Two-tailed
6	d	(Western blotting)				n=3	HEK293T cells (Fold change)	Rapamycin	+serum -serum 4 hr	1.35 ± 0.20 (SD) 1.46 ± 0.24 (SD)	Student's t-test	p = 0.5988, ns	t(4) = 29.66	Two-tailed
								mTOR/Tanc	0 hr 0.5 hr	1.00 ± 0.00 (SD) 0.73 ± 0.06 (SD)	One-way ANOVA Bonferron's multiple comparison test	p = 0.0241, *	F(2, 6) =	7.748, p = 0.011
						n=4			1 hr 0 hr	0.69 ± 0.08 (SD) 1.00 ± 0.00 (SD)	One-way ANOVA	p = 0.011, *		
	e	Colmmunoprecipitation using P2 fraction (Western biotion)			P13-14		Ratio (Fold change)	PSD-95/Tanc	0.5 hr	1.03 ± 0.15 (SD) 1.20 ± 0.07 (SD)	Bonferroni's multiple comparison test	p > 0.9999, ns p = 0.3317, ns	F(2, 6) =	1.319, p = 0.3144
								Tanc/mTOR	0.5 hr	0.79 ± 0.25 (SD)	One-way ANOVA Bonferroni's multiple comparison test	p = 0.1345, ns	F(2, 12) =	5.367, p = 0.0216
						n=5		PSD-95/mTOR	0 hr 0.5 hr	1.00 ± 0.00 (SD) 1.04 ± 0.06 (SD)	One-way ANOVA Renfermalia metinia companiese test	p > 0.9999, ns	F(2, 12) =	0.9637, p = 0.4091
									1 hr	0.12 ± 0.09 (SD)	Companyon a mappe companyon teat	p = 0.3092, ns		
								Taos? (actio	Control Tanc2 shRNA	1.00 ± 0.00 (SD) 0.31 ± 0.13 (SD)	-	p = 0.0002, ***	F(4, 15) -	25 89 5 < 0.0001
								THE R. F. BLANT	Tanci shRNA	0.23 ± 0.16 (SD) 1.03 ± 0.25 (SD)	-	p < 0.0001, *** p < 0.0001, ***	1(4, 13) =	2000, p.C.00001
									Control Tanc2 shRNA	1.00 ± 0.00 (SD) 0.98 ± 0.17 (SD)		p > 0.9999, ns		
								Deptor / actin	Deptor shRNA Tancz & Deptor	0.41 ± 0.08 (SD) 0.33 ± 0.12 (SD)		p = 0.0033, ** p = 0.0012, **	F(4, 15) =	16.16, p < 0.0001
									Tanc1 shRNA Control	1.25 ± 0.38 (SD) 1.00 ± 0.00 (SD)	-	p = 0.3681, ns		
								Tanc1 / actin	Tanc2 shRNA Deptor shRNA Tanc2 & Deptor	1.10 ± 0.08 (SD) 1.10 ± 0.17 (SD) 1.22 ± 0.22 (SD)	-	p > 0.9999, ns p > 0.9999, ns	F(4, 15) =	20.45, p < 0.0001
									Tanc1 shRNA Control	0.43 ± 0.07 (SD) 1.00 ± 0.00 (SD)		p = 0.0001, ***		
								p-S6 / S6	Tanc2 shRNA Deptor shRNA	2.29 ± 0.57 (SD) 1.31 ± 0.33 (SD)		p = 0.0091, ** p = 0.8660, ns	F(4, 15) =	6,478 p = 0.0031
									Tanci shRNA	2.28 ± 0.63 (SD) 1.95 ± 0.47 (SD)	-	p = 0.0096, ** p = 0.0426, *		
		Western bioting			DIV 14	n=4	Ratio (Fold change)	n-4E-BP / 4E-BP	Control Tanc2 shRNA	1.00 ± 0.00 (SD) 2.39 ± 0.72 (SD)	One-way ANOVA	p = 0.0056, **	F(4, 15) =	5 664 p = 0 0055
		Transition booming			5.0.14			pacial racial	Tanc2 & Deptor	1.11±020 (SD) 2.05±0.61 (SD) 1.47±0.29 (SD)	Bonferroni's multiple comparison test	p > 0.3898, ns p = 0.0398, * p = 0.8059, ns	1(4, 13) =	5.004, p = 0.0005
									Control Tanc2 shRNA	1.00 ± 0.00 (SD) 1.25 ± 0.20 (SD)		p = 0.4619, ns		
								p-mTOR / mTOR	Tanc2 & Deptor	1.07 ± 0.24 (SD) 1.49 ± 0.13 (SD)		p > 0.9999, ns p = 0.0228, *	F(4, 15) = 3.121, p = 0.0469	
									Tanc1 shRNA Control	0.19±0.34 (SD) 1.00±0.00 (SD)	-	p = 0.9187, ns		
					p-Akt (T308) / Akt	Deptor shRNA Tancz & Deptor	1.23 ± 0.17 (SD) 1.16 ± 0.20 (SD)		p = 0.8083, ns p > 0.9999, ns	F(4, 15) = 1.976, p = 0.1500				
									Tanc1 shRNA Control	0.80 ± 0.46 (SD) 1.00 ± 0.00 (SD)		p > 0.9999, ns		
								p-Akt (S473) / Akt	Tanc2 shRNA Deptor shRNA	1.68 ± 0.28 (SD) 1.17 ± 0.15 (SD)		p = 0.0192, * p > 0.9999, ns	F(4, 15) = 8.58, p = 0.0008	
									Tanci shRNA	1.92±0.51 (SD) 0.97±0.24 (SD) 1.00±0.00 (SD)		p = 0.0018, ** p > 0.9999, ns	+	
								pGSK3β / GSK3β	Tanc2 shRNA Deptor shRNA	1.55 ± 0.19 (SD) 0.93 ± 0.08 (SD)		p = 0.0002, *** p > 0.9999, ns	F(4, 15) = 14.53, p = 0.0001 F(4, 15) = 34.27, p = 0.0001	
7									Tanc2 & Deptor chRNA Tanc1 shRNA	1.41 ± 0.12 (SD) 1.11 ± 0.19 (SD)	- - - - -	p = 0.0034, ** p > 0.9999, ns		
								Tanc? / actin	Control Tanc2 shRNA	1.00 ± 0.00 (SD) 0.37 ± 0.15 (SD)		p < 0.0001, ***		
									Tanc2 & Deptor	0.32 ± 0.15 (SD) 1.00 ± 0.14 (SD)		p = 0.8076, Its p < 0.0001, *** p > 0.9999, ns		
									Control Tanc2 shRNA	1.00 ± 0.00 (SD) 0.99 ± 0.05 (SD)		p > 0.9999, ns		
								Deptor / actin	Deptor shRNA Tancz & Deptor	0.50 ± 0.05 (SD) 0.62 ± 0.16 (SD)	-	p = 0.004, ** p = 0.0306, *	F(4, 15) = 16.94, p < 0.0001	
									Tanc1 shRNA Control Tanc2 shRNA	1.40 ± 0.34 (SD) 1.00 ± 0.00 (SD) 0.88 ± 0.15 (SD)	-	p = 0.0199, *		
								Tanc1 / actin	Deptor shRNA Tanc2 & Deptor	0.94 ± 0.12 (SD) 0.78 ± 0.08 (SD)		p > 0.9999, ns p = 0.0562, ns	F(4, 15) =	25.82, p < 0.0001
									Tanc1 shRNA Control	0.31 ± 0.10 (SD) 1.00 ± 0.00 (SD)	-	p < 0.0001, ***	F(4, 15) = 19.21 p < 0.0001 F(4, 15) = 4.407, p = 0.0149	
								p-S6 / S6	Deptor shRNA Tancz & Deptor	1.85±0.13(SD) 1.85±0.35(SD) 1.74±0.21(SD)		p = 0.007, ** p = 0.0196. *		
									Tanc1 shRNA Control	2.78 ± 0.55 (SD) 1.00 ± 0.00 (SD)		p < 0.0001, ***		
	d	Western blotting			DIV 28	n=4	Ratio (Fold change)	p-4E-BP / 4E-BP	Tanc2 shRNA Deptor shRNA	1.42 ± 0.30 (SD) 1.65 ± 0.15 (SD)	One-way ANOVA Bonterroni's multiple comparison test	p = 0.1126, ns p = 0.0073, **		
									Tanc1 shRNA Control	1.55 ± 0.10 (SD) 1.54 ± 0.41 (SD) 1.00 ± 0.00 (SD)	-	p = 0.024, p = 0.0257, *		
								p-mTOR / mTOR	Tanc2 shRNA Deptor shRNA	0.82 ± 0.07 (SD) 0.76 ± 0.18 (SD)		p = 0.1394, ns p = 0.0362, *	F(4, 15) =	4.077, p = 0.0197
									Tanci shRNA	0.73 ± 0.06 (SD) 0.73 ± 0.12 (SD)	-	p = 0.0148, * p = 0.0164, *		
								p-Akt (T308) / Akt	Tanc2 shRNA	1.00 ± 0.00 (SD) 1.02 ± 0.16 (SD) 1.28 + 0.15 (SD)	1	p > 0.9999, ns	F(4, 15) =	4.659, p = 0.0121
									Tanc2 & Deptor	1.29 ± 0.22 (SD) 0.94 ± 0.14 (SD)]	p = 0.0627, ns p > 0.9999, ns		
								- 41	Control Tanc2 shRNA	1.00 ± 0.00 (SD) 1.06 ± 0.11 (SD)	4	p > 0.9999, ns		20.04 0 - 0.0004
								prvos (0+r3) / ANI	Tanc2 & Deptor	1.53 ± 0.03 (SD) 1.73 ± 0.04 (SD) 1.27 ± 0.17 (SD)		p < 0.0001, *** p < 0.0001, *** p = 0.0052, **	r(4, 15) =	
									Control Tanc2 shRNA	1.00 ± 0.00 (SD) 1.19 ± 0.01 (SD)		p = 0.1376, ns		
								pGSK3β / GSK3β	Deptor shRNA Tanc2 & Deptor	1.35 ± 0.13 (SD) 1.37 ± 0.15 (SD)	-	p = 0.0036, ** p = 0.002, **	F(4, 15) =	15.56, p < 0.0001
	1			T	·	• 		·	Control	1.00 ± 0.00 (SD)	·]	P<0.0001, **	·	
								Tanc2 / actin	Tanc2 shRNA1 Tanc2 shRNA2	0.27 ± 0.05 (SD) 0.27 ± 0.14 (SD)	1	p < 0.0001, *** p < 0.0001, ***	F(2, 9) =	37.04, p < 0.0001
								p-S6 / S6	Control Tanc2 shRNA1	1.00 ± 0.00 (SD) 1.51 ± 0.17 (SD) 1.52 ± 0.45 (SD)	4	p = 0.0584, ns	F(2, 9) =	5.59 p = 0.0263
								p-4E-BP / 4E-BP	Control Tanc2 shRNA1	1.00 ± 0.00 (SD) 1.65 ± 0.40 (SD)		p = 0.0288, *	F(2, 9) =	7.34, p = 0.0129
8	٩	Western blotting			Day 14	n=4	Ratio (Fold change)		Tanc2 shRNA2 Control	1.77 ± 0.34 (SD) 1.00 ± 0.00 (SD)	One-way ANOVA Borferroni's multiple comparison test	p = 0.0124, *		
								p-mTOR / mTOR	Tanc2 shRNA1 Tanc2 shRNA2	1.47 ± 0.39 (SD) 1.68 ± 0.64 (SD)		p = 0.3150, ns p = 0.104, ns	F(2, 9) =	z.n.z, p = u.1266
								p-Akt (S473) / Akt	Tanc2 shRNA1 Tanc2 shRNA2	0.77 ± 0.29 (SD) 1.37 ± 0.09 (SD)	1	p = 0.2209, ns p = 0.0321, *	F(2, 9) =	11.41, p = 0.0034
								pGSK3β / GSK3β	Control Tanc2 shRNA1	1.00 ± 0.00 (SD) 1.97 ± 0.64 (SD)		p = 0.03, *	F(2, 9) =	5.83, p = 0.0237
E		I	1	1	<u> </u>	1	1	I	Tanc2 shRNA2	1.94 ± 0.46 (SD) WT = 61 12 ± 2.33	I	p = 0.0343, *	I	_
1							Preference index (%)			HT = 67.60 ± 2.07 WT = 2221.67 ± 69.83	Student's t-test	p = 0.0529, ns	t(32) = 2.0100	Two-tailed
1							Speed (cm/s)			HT = 2789.45 ± 122.54 WT = 3.70 ± 0.11	Mann-Whitney U	p = 0.0006, ***	U = 48	Two-tailed
	а	Novel object test		Male	2-3 months	WT = 17 HT = 17		Familiar object vs novel	WT	n i = 4.64 ± 0.20 F = 12.11 ± 1.26 N = 18.31 ± 1.60	Student's t-test	p = 0.0073, **	t(32) = 2.867	Two-tailed
							Exploration time (s)	object	нт	F = 13.08 ± 1.66 N = 27.26 ± 0.15	Student's t-test	p = 0.0002, ***	t(32) = 4.258	Two-tailed
							Frequency of object exploration (count)	Familiar object vs novel object	WT	F = 24.17 ± 1.83 N = 26.00 ± 2.44	Mann-Whitney U	p = 0.9120, ns	U = 141	Two-tailed
					<u> </u>			angest	нт	r = 26.35 ± 4.00 N = 41.47 ± 4.64 WT = 58.95 ± 2.63	Mann-Whitney U	p = 0.0114, *	U = 72	Two-tailed
									10 minutes 20 minutes	HT = 67.53 ± 2.95 WT = 40.13 ± 1.61]	p =0.0436, *	-	
1	1	I	1	1	1	1	1	I		HT = 49.48 ± 2.15	J		J	

										30 minutes	WT = 36.29 ± 2.22 HT = 46.33 ± 1.58	Two-way ANOVA repeated measures	p = 0.0107, *	Interaction: F(5, 110) = Tanc2: F(1, 22) = 12.7	= 0.4458, p = 0.8155
							107 43	Distance moved (m)	Light off (U luk)	40 minutes	WT = 35.25 ± 2.10	Borrenton's multiple companison test	p = 0.4236, ns	Time: F(5, 110) = 88.2	29, p < 0.0001
	1	ь	Open field test		Male	7-8 weeks	WT = 13 HT = 11			50 minutes	HT = 40.59 ± 1.79 WT = 29.28 ± 1.37	-	p = 0.0280. *	-	
											HT = 38.34 ± 2.24 WT = 34.54 ± 2.69	-	P	-	
										60 minutes	HT = 39.16 ± 2.71		p = 0.1020, ns		
								Total distance moved (m)		60 minutes	WT = 231.47 ± 10.06 HT = 281.86 ± 96.59	Student's t-test	p = 0.0017, **	t(22)= 3.575	Two-tailed
								Time spent in center region (s)		60 minutes	WT = 651.6 ± 76.00	Mann-Whitney U	p = 0.1339, ns	U = 45	Two-tailed
											H1 = 733.7 ± 53.17 WT = 38.54 ± 2.75		- 0.0040 II		
										-	HT = 49.688 ± 4.14		p > 0.0010,	-	
										4	HT = 37.49 ± 3.59		p > 0.0001, ***		
										6	WT = 21.79 ± 2.01 HT = 33.29 ± 3.86		p = 0.0005, ***		
										8	WT = 15.69 ± 2.47	1	p = 0.0001, ***		
										10	HT = 28.11 ± 4.00 WT = 18.37 ± 2.34	-	0 - 0.0051 **		
										10	HT = 28.46 ± 3.75	-	p=0.0001,	_	
										12	HT = 17.88 ± 3.58		p > 0.9999, ns		
										14	WT = 7.98 ± 1.58 HT = 9.06 ± 1.41		p > 0.9999, ns		
										16	WT = 3.33 ± 0.67	1	p > 0.9999, ns		
										18	HI = 5.53 ± 1.01 WT = 3.87 ± 0.69	-	0 > 0 9999 .05		
										10	HT = 5.39 ± 0.85	-	p.> 0.3330,10	-	
										20	HT = 4.69 ± 0.42	-	p > 0.9999, ns		
										22	WT = 4.25 ± 0.52 HT = 5.62 ± 0.91		p > 0.9999, ns		
										24	WT = 16.65 ± 3.15		p > 0.9999, ns		
Sup	pple									26	WT = 24.66 ± 2.65	1	p > 0.9999. ns		
y Fi	ig. 1										HT = 29.82 ± 3.88 WT = 23.99 ± 2.40	-		-	
										28	HT = 38.10 ± 3.32	-	p < 0.0001, ***	_	
										30	WT = 19.25 ± 2.36 HT = 31.87 ± 4.94		p < 0.0001, ***		
										32	WT = 17.84 ± 2.64 HT = 25.29 ± 4.34		p = 0.1710, ns		
										34	WT = 14.18 ± 1.69	1	p = 0.5561, ns		
			Laboras		Male	2.3 months	WT = 16	Distance moved (m)	Time (hr)	36	HT = 20.56 ± 2.28 WT = 13.18 ± 2.70	Two-way ANOVA repeated measures	0 > 0 9999 .05	Interaction: F(34, Tanc2: F(1, 15	510) = 3.07, p < 0.0001
		-					HT = 16				HT = 15.56 ± 2.39 WT = 2.51 ± 0.48	Bonferroni's multiple comparison test	,	Time: F(34, 51	0) = 34.39, p < 0.0001
										38	HT = 6.70 ± 0.92	4	p > 0.9999, ns	4	
										40	WT = 3.19 ± 0.71 HT = 3.46 ± 0.50		p > 0.9999, ns		
										42	WT = 4.01 ± 0.50		p > 0.9999, ns	1	
										44	WT = 3.26 ± 0.44		p > 0.9999, ns		
											HT = 4.94 ± 0.74 WT = 4.30 ± 0.46	1	0 - 0 0000	1	
										46	HT = 6.65 ± 1.26	4	p > u.atata, ns	4	
										48	WT = 15.71 ± 2.49 HT = 20.73 ± 4.00		p > 0.9999, ns		
										50	WT = 27.52 ± 1.92 HT = 35.50 ± 3.51		p = 0.0901, ns		
										52	WT = 24.14 ± 2.48	1	p = 0.0058, **		
										54	HT = 34.14 ± 4.60 WT = 17.46 ± 2.58	-	0 - 0 0094 **		
											HT = 27.12 ± 5.41	-	p=0.0004,	-	
										56	HT = 23.13 ± 3.65	-	p = 0.3753, ns		
										58	WT = 15.36 ± 1.97 HT = 22.96 ± 2.98		p = 0.1438, ns		
										60	WT = 9.58 ± 1.62		p > 0.9999, ns		
										62	HI = 12.71 ± 2.77 WT = 3.27 ± 0.69	-	p > 0.9999. ns		
											HT = 4.85 ± 0.74 WT = 3.74 ± 0.70	-		-	
										64	HT = 4.13 ± 0.75	-	p > 0.tetate, ns	_	
										66	HT = 3.25 ± 0.57		p > 0.9999, ns		
										68	WT = 4.41 ± 0.47 HT = 5.16 ± 0.70		p > 0.9999, ns		
										70	WT = 6.37 ± 0.78		p > 0.9999, ns		
											111 = 0.4.5 4 1.50				
										Open arm	WT = 104.98 ± 10.97	-	p = 0.0946, ns	t(22) = 1.747	Two-tailed
			Florented along many		Mala	0.0 mente		Time spert in arm (s)		Open arm	WT = 104.98 ± 10.97 HT = 140.98 ± 18.30 WT = 340.70 ± 16.97	Student's t-test	p = 0.0946, ns	t(22) = 1.747	Two-tailed
		d	Elevated pluse maze		Male	2-3 months		Time spent in arm (s)		Open arm Closed arm	WT = 104.98 ± 10.97 HT = 140.98 ± 18.30 WT = 340.70 ± 16.97 HT = 279.32 ± 21.05 WT = 200.14 ± 14	Student's t-test	p = 0.0946, ns p = 0.0316, *	t(22) = 1.747 t(22) = 2.296	Two-tailed
		d	Elevated pluse maze		Male	2-3 months		Time spert in arm (s) Distance moved (m)		Open arm Closed arm	WT = 104.98 ± 10.97 HT = 140.98 ± 18.30 WT = 340.70 ± 16.97 HT = 279.32 ± 21.05 WT = 22.00 ± 1.44 HT = 24.91 ± 1.18	Studeni's 1-test Studeni's 1-test	p = 0.0946, ns p = 0.0316, * p = 0.1417, ns	t(22) = 1.747 t(22) = 2.296 t(22) = 1.524	Two-tailed Two-tailed Two-tailed
		d	Elevated pluse maze		Male	2-3 months	WT = 13	Time spert in arm (s) Distance moved (m) Light zone (s)		Open arm Closed arm	WT = 104.98 ± 10.37 HT = 140.98 ± 18.30 WT = 340.70 ± 16.97 HT = 279.32 ± 21.05 WT = 22.00 ± 1.44 HT = 24.91 ± 1.18 WT = 191.19 ± 17.38 HT = 152.98 ± 14.30	Studeni's I-test Studeni's I-test Studeni's I-test	p = 0.0946, ns p = 0.0316, * p = 0.1417, ns p = 0.3836, ns	t(22) = 1.747 t(22) = 2.296 t(22) = 1.524 t(20) = 0.0208	Two-tailed Two-tailed Two-tailed Two-tailed
		d e	Elevated pluse maze		Male	2-3 months 2-3 months	WT = 13 HT = 10	Time spert in arm (s) Distance moved (m) Light zone (s) Frequency of transition (count)		Open arm Closed arm	WT = 104.98 ± 10.97 HT = 140.98 ± 18.30 WT = 340.70 ± 16.97 HT = 279.32 ± 21.06 WT = 22.00 ± 1.44 HT = 24.91 ± 11.8 WT = 191.19 ± 17.38 HT = 102.98 ± 14.30 WT = 65.16 ± 4.47 HT = 66.16 ± 4.47	Skudent's 1-test Skudent's 1-test Skudent's 1-test Skudent's 1-test	p = 0.0346, ns p = 0.0346, * p = 0.1417, ns p = 0.3836, ns p = 0.3831, ns	$\begin{split} t(22) &= 1.747 \\ t(22) &= 2.296 \\ t(22) &= 1.524 \\ t(20) &= 0.0208 \\ t(20) &= 0.0773 \end{split}$	Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed
		d e	Elevated pluse maze		Male Male	2-3 months 2-3 months	WT = 13 HT = 10	Time spert in arm (s) Distance moved (m) Light zone (s) Frequency of transition (count)		Open arm Closed arm	WT = 104.88 ± 10.97 HT = 43.09 ± 11.80 WT = 3.04.70 ± 10.97 HT = 279.32 ± 21.06 WT = 22.00 ± 1.44 HT = 22.491 ± 118 WT = 191.19 ± 17.38 HT = 102.98 ± 14.30 WT = 66.10 ± 4.47 HT = 66.30 ± 4.49	Studen's Heat Studen's Heat Studen's Heat Studen's Heat	p = 0.0946, rs p = 0.0316, * p = 0.1417, rs p = 0.3836, rs p = 0.38991, rs	1(22) = 1.747 1(22) = 2.296 1(22) = 1.524 1(20) = 0.0208 1(20) = 0.0773	Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed
		d e	Elevated pluse maze		Male Male	2-3 months 2-3 months	WT = 13 HT = 10	Time spert in am (s) Distance moved (m) Light zone (s) Frequency of transition (court) Graftion time (r)		Open arm Closed arm	WT = 104.98 ± 10.37 WT = 304.79 ± 10.97 WT = 320.79 ± 10.97 H = 7.27.30 ± 12.61 WT = 22.03 ± 14.4 WT = 22.03 ± 1.43 WT = 22.03 ± 1.43 WT = 72.03 ± 1.43 WT = 72.03 ± 1.43.0 WT = 62.03 ± 4.40 WT = 66.30 ± 4.42 = 63.03 ± 4.62 0 = 63.03 ± 6.12 5 = 81825 ± 10.84	Studen's Heat Studen's Heat Studen's Heat Studen's Heat Studen's Heat	p = 0.0948, rs p = 0.0316, * p = 0.1417, rs p = 0.3838, rs p = 0.3839, rs p = 0.3091, rs	1(22) = 1.747 1(22) = 2.296 1(22) = 1.524 1(20) = 0.0208 1(20) = 0.0773 1(26) = 9.45	Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed
		e	Elevated pluse maze		Male	2-3 months 2-3 months	WT = 13 HT = 10	Time spert in arm (s) Distance moved (m) Light zone (s) Frequency of transition (court) Solifting time (s)		Open am Closed am United am WT	$\begin{split} W^{-} = 10.40 \pm 50.07\\ W^{-} = 30.07 \times 10^{-5} {\rm Mg} {\rm M} {\rm S} {\rm S}$	Studen's Heat Studen's Heat Studen's Heat Studen's Heat Studen's Heat	p = 0.0948, rs p = 0.0348, *s p = 0.1417, rs p = 0.3858, rs p = 0.3051, rs p = 0.3051, rs	1(22) = 1.747 1(22) = 2.296 1(22) = 1.524 1(20) = 0.0208 1(20) = 0.0773 1(26) = 9.45 1(26) = 6.539	Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed
		e	Elevated pluse maze		Male	2-3 months 2-3 months	WT = 13 HT = 10	Time spert in arm (s) Distance moved (m) Light zone (s) Frequency of transition (count) Softfing time (s)	Stranger vs Object	Open am Closed am WT HT WT	$\begin{split} W^{-} = 104.04 \pm 1037 \\ W^{-} = 104.04 \pm 1037 \\ W^{-} = 360.70 \pm 1647 \\ W^{-} = 260.70 \pm 1647 \\ W^{-} = 202.00 \pm 144 \\ W^{-} = 202.00 \pm 142 \\ W^{-} = 202.00$	Buder's Heat	p = 0.0346, re p = 0.0316, * p = 0.4177, re p = 0.3027, re p = 0.0007, *** p < 0.0007, *** p < 0.0007, ***	1(22) = 1.747 1(22) = 2.296 1(22) = 1.524 1(20) = 0.0208 1(20) = 0.0773 1(26) = 0.45 1(26) = 6.539 1(26) = 9.161	Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed
		e	Elevated pluse maze		Male Male	2-3 months	WT = 13 HT = 10	Time spert in arm (s) Distance moved (m) Ugit zone (s) Frequency of transition (court) Settling time (s) Chamber time (s)	Stranger vs Object	Open arm Closed arm WT HT VT	$\begin{split} W^{\prime \prime} = 104.08 \pm 10.07\\ W^{\prime \prime} = 104.08 \pm 10.07\\ W^{\prime \prime} = 350.70 \pm 16.07\\ W^{\prime \prime} = 250.70 \pm 16.07\\ W^{\prime \prime} = 250.20 \pm 1.44\\ W^{\prime \prime} = 50.20 \pm 1.43\\ W^{\prime \prime} = 60.20 \pm 4.42\\ W^{\prime \prime} = 60.20 \pm$	Studen's less Studen's less Studen's less Studen's less Studen's less Studen's less Studen's less	p = 0.0566, re p = 0.0166, * p = 0.0417, re p = 0.0007, re p = 0.0007, re p < 0.0007, *** p < 0.0007, *** p < 0.0007, *** p < 0.0007, ***	1(22) = 1.747 1(22) = 2.296 1(22) = 1.524 1(20) = 0.0208 1(20) = 0.0773 1(26) = 9.45 1(26) = 6.539 1(26) = 9.161 1(26) = 9.161	Two-tailed
		d e	Elevated pluce mane		Male	2-3 months 2-3 months 2-3 months	WT = 13 HT = 10 WT = 14 HT = 14	Time spart in aim (s) Distance moved (m) Light zone (s) Prequency of transition (court) Softing time (s) Chamber time (s)	Stranger vs Object	Open arm Closed arm WT HT HT HT	$\begin{split} W^{-} = 10.48 \pm 50.27\\ W^{-} = 10.48 \pm 50.27\\ W^{-} = 36.07 \times 2 \pm 60.77\\ W^{-} = 36.07 \times 2 \pm 60.77\\ W^{-} = 22.00 \pm 1.44\\ W^{-} = 22.00 \pm 1.44\\ W^{-} = 22.00 \pm 1.44\\ W^{-} = 20.02 \pm 1.43\\ W^{-} = 100.92 \pm 1.43\\ W^{-} = 100.92$	Studen's least	p = 0.0046, re p = 0.0316, * p = 0.4177, reg p = 0.3187, reg p = 0.3097, reg p < 0.0007, ***	$\begin{split} & 1(22) = 1.747 \\ & (122) = 2.296 \\ & 1(22) = 1.524 \\ & 1(20) = 0.0208 \\ & 1(20) = 0.0773 \\ & 1(20) = 0.0773 \\ & 1(20) = 0.45 \\ & 1(20) = 6.539 \\ & 1(26) = 6.539 \\ & 1(26) = 5.104 \\ & 1(26$	Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed Two-tailed
		d e	Elevated pluse maze		Male Male	2-3 months 2-3 months 2-3 months	WT = 13 HT = 10 WT = 14 HT = 14	Time speri in ami (s) Distance moved (m) Uply zone (s) Prequency of transition (court) Goating time (s) Chamber time (s) Softing time (s)	Stranger vs Object	Open arm Closed arm WT HT WT WT	$\begin{split} W^{-} = 104.08 \pm 50.07\\ W^{-} = 104.08 \pm 50.07\\ W^{-} = 360.77 \pm 56.07\\ W^{-} = 360.77 \pm 56.07\\ W^{-} = 250.27 \pm 56.07\\ W^{-} = 220.03 \pm 14.4\\ W^{-} = 207.03 \pm 14.4\\ W^{-} = 207.03 \pm 14.4\\ W^{-} = 207.03 \pm 14.3\\ W^{-} = 207.0$	Studen's Hest St	p = 0.0546, rs p = 0.0316, * p = 0.3158, rs p = 0.3159, rs p = 0.3059, rs p < 0.0007, rs p < 0.0007, rs p < 0.0007, rs p < 0.0007, rs p < 0.0004, rs p < 0.0004, rs	$\begin{split} & 1(22) = 1.747 \\ & (122) = 2.296 \\ & 1(22) = 1.524 \\ & 1(20) = 0.0208 \\ & 1(20) = 0.0773 \\ & 1(20) = 0.0773 \\ & 1(20) = 0.45 \\ & 1(20) = 0.516 \\ & 1(20) = 0.161 \\ & 1(20) = 5.104 \\ & 1(20) = 3.515 \\ & 1(20) = 0.516 \\ & 1(20$	Two-tailed
		d e	Ebrated place maze		Male	2-3 months 2-3 months 2-3 months	WT = 13 HT = 10 WT = 14 HT = 14	Time speri in ami (s) Distance moved (m) Light zone (e) Prequency of transition (court) Softing time (s) Chamber time (s) Softing time (s)	Stranger vs Object	Open arm Closed arm WT HT WT HT WT HT	$\label{eq:second} \begin{split} & W^{-} = 10.4 \text{M} = 50.27 \\ W^{-} = 13.6 \text{M} = 50.27 \\ W^{-} = 36.07 \text{D} = 18.07 \\ W^{-} = 320.70 \\ = 18.07 \\ W^{-} = 220.0 \\ \text{s} = 1.44 \\ W^{-} = 20.0 \\ \text{s} = 1.44 \\ W^{-} = 20.0 \\ \text{s} = 1.44 \\ W^{-} = 20.0 \\ \text{s} = 1.44 \\ W^{-} = 107.13 \\ W^$	Studen's test	$p = 0.0566, re \\ p = 0.0316, * \\ p = 0.0316, * \\ p = 0.0007, re \\ p = 0.0007, re \\ p = 0.0007, * * \\ p = 0.0007, * \\ p = 0.0007,$	$\begin{split} 1(22) &= 1.747 \\ 1(22) &= 1.247 \\ 1(22) &= 1.524 \\ 1(22) &= 1.524 \\ 1(22) &= 0.0208 \\ 1(20) &= 0.02773 \\ \hline 1(20) &= 0.0773 \\ 1(20) &= 0.539 \\ 1(20) &= 0.510 \\ 1(20) &= 0.161 \\ 1(20) &= 0.161 \\ 1(20) &= 0.161 \\ 1(20) &= 0.515 \\ 1(20) &= 0.512 \\ \hline 1(20) &= 0$	Tiscialed
		d e	Elevated pluse mase		Male Male Male	2-3 months 2-3 months 2-3 months	WT = 13 HT = 10 WT = 14 HT = 14	Time speer in am (s) Distance moved (m) Uptranne (s) Prequency of sandtion (court) Setting time (s) Chamber time (s) Setting time (s)	Stranger vs Object Sitranger 1 vs Stranger 2	Open am Closed am WT WT WT WT WT	$\begin{split} W^{\rm T} = 104.08 \pm 10.07\\ W^{\rm T} = 104.08 \pm 10.07\\ W^{\rm T} = 306.70 \pm 16.07\\ W^{\rm T} = 236.70 \pm 16.07\\ W^{\rm T} = 230.51 \pm 164\\ W^{\rm T} = 220.51 \pm 164\\ W^{\rm T} = 220.51 \pm 164\\ W^{\rm T} = 102.08 \pm 14.30\\ W^{\rm T} = 619.08 \pm 14.30\\ W^{\rm T} = 619.08 \pm 14.30\\ W^{\rm T} = 619.08 \pm 4.47\\ W^{\rm T} = 619.30 \pm 4.48\\ W^{\rm T} = 619.23 \pm 4.48\\ W^{\rm T} = 619.23 \pm 4.48\\ W^{\rm T} = 619.23 \pm 1.438\\ W^{\rm T} = 619.23 \pm 1.636\\ W^{\rm T} = 519.23 \pm 1.636\\ W^{\rm T} = 519.23 \pm 1.636\\ W^{\rm T} = 519.25 \pm 1.636\\ W^{\rm T} = 50.25 \pm 1.636\\ W^{\rm T} = 50.25 \pm 1.636\\ W^{\rm T} = 50.25 \pm 1.636\\ W^{\rm T} = 102.03 \pm 1.036\\ W^{\rm T} = 277.72 \pm 106\\ W^{\rm T} = 270.03 \pm 1.037\\ W^{\rm T} = 100.03 \pm 1.037\\ W^{\rm T} = 100.032\\ W^{\rm T} =$	Studen's ited Studen's ited Studen's ited Studen's ited Studen's ited Studen's ited Studen's ited Studen's ited Studen's ited	p = 0.0564, re $p = 0.016, *$ $p = 0.016, *$ $p = 0.0007, re$ $p = 0.0007, re$ $p < 0.0007, **$ $p < 0.0007, ***$	$\begin{split} 1(22) &= 1.747 \\ 1(22) &= 2.296 \\ 1(22) &= 1.5.24 \\ 1(20) &= 0.0208 \\ 1(20) &= 0.0773 \\ \hline \\ 1(20) &= 0.0773 \\ \hline \\ 1(20) &= 0.45 \\ 1(20) &=$	Two tabled
		d e	Elevated place mase		Male Male Male	2-3 months 2-3 months 2-3 months	WT = 13 HT = 10 WT = 14 HT = 14	Time speet in am (s) Distance moved (m) Upt zone (s) Prequency of transition (coard) Chamber sine (s) Chamber sine (s) Chamber sine (s)	Stranger vs Object Stranger 1 vs Stranger 2	Cipen am Closed am WT HT WT HT WT HT HT	$\begin{split} & W^{-} = (0.40 \pm 0.07) \\ & W^{-} = (0.40 \pm 0.07) \\ & W^{-} = 360.70 \pm 60.77 \\ & W^{-} = 360.70 \pm 60.77 \\ & W^{-} = 220.0 \pm 1.44 \\ & W^{-} = 102.09 \pm 1.43.0 \\ & W^{-} = 0.01 \pm 1.43.0 \\ & W^{-} = 0.01$	Studen's least Studen's least Studen's least Studen's least Studen's least Studen's least Studen's least Studen's least Studen's least	p = 0.0564, m $p = 0.0316, *$ $p = 0.3417, m$ $p = 0.3437, m$ $p = 0.3934, m$ $p < 0.0007, ***$	(22) = 1.747 (22) = 2.266 (22) = 2.266 (22) = 1.224 (22) = 1.224 (22) = 0.000 (22) = 0.0773 (20) = 0.4773 (20) = 0.4	Two tabled
		d •	Elevated place maze		Male	2-3 months 2-3 months 2-3 months	WT = 13 HT = 10 WT = 14 HT = 14	Time spent in ami (s) Distance moved (m) Upts zone (s) Prequency of transfition (court) Setting time (s) Chamber time (s) Chamber time (s) Chamber time (s) Chamber time (s)	Stranger vs Object	Open am Closed am WT	$\begin{split} & W^{-} = 10.4 \text{M} = 50.27 \\ & W^{-} = 10.4 \text{M} = 50.27 \\ & W^{-} = 36.27 \text{m} = 56.27 \\ & W^{-} = 36.27 \text{m} = 56.27 \\ & W^{-} = 23.20 \text{m} = 1.44 \\ & W^{-} = 20.7 \text{m} = 1.44 \\ & W^{-} = 20.7 \text{m} = 1.44 \\ & W^{-} = 20.7 \text{m} = 1.44 \\ & W^{-} = 107 \text{m} = 1.03 \\ & W^{-} = 108 \text{m} = 1.03 \ \text{m} = 1.03 \\ & W^{-} = 1.03 \text{m} = 1.03 \ \text{m} = 1.03 \\ & W^{-} = 1.03 \text{m} = 1.03 \ m$	Studen's Heat	p = 0.0046, re $p = 0.0116, r$ $p = 0.0116, re$ $p = 0.0117, re$ $p = 0.0107, re$ $p < 0.0001, re$	(22) + 1.247 (22) + 2.246 (22) + 2.246 (22) + 2.246 (22) - 0.000 (23) - 0.000	Two tabled
Sup	pple ntar	d o	Elevated place maze		Male	2-3 months 2-3 months 2-3 months P3	WT = 13 HT = 10 WT = 14 HT = 14 HT = 14	Time speri in ami (s) Distance moved (m) Upit zone (s) Prequency of transition (court) Coanter time (s) Chamber time (s)	Stranger va Object Stranger 1 vs Stranger 2	Cipen am Cicked am VVT HT WT HT WT HT WT HT HT	$\begin{split} & W^{-} = 10.8 \ \text{m} \ \text{s} 507 \\ & W^{-} = 10.4 \ \text{m} \ \text{s} \ \text{s} 507 \\ & W^{-} = 36.07 \ \text{s} \ \s} \ \text{s} \ \\text{s} \ \s} \ \\text{s} \ \\text{s} \ \\text{s} \ \ \\text{s} \ \\text{s} \ \ \ \ \ \ \ \s} \ \ \ \ \ \ \ \ \ \$	Studen's test	p = 0.0546, re p = 0.0316, * p = 0.0316, * p = 0.0307, re p = 0.0307, re p = 0.0007, *** p = 0.0007, ***	(22) = 1.247 (22) = 2.246 (22) = 2.246 (22) = 2.246 (22) = 0.207 (23) = 0.0079 (23) = 0.0079 (23) = 0.451 (24) = 2.552 (24) = 2.5	T sic tabled
Sign man man y Fi	ople ntar 19, 2	d e	Elevated place mase		Male Male Male	2-3 months 2-3 months 2-3 months P3	WT = 13 HT = 10 WT = 14 HT = 14 WT = 23 HT = 23	Time speet in am (s) Distance moved (m) Uptranne (s) Peopancy of santistic (court) Setting time (s) Chamber time (s) Chamber time (s) Call duration (s) Call autom (s)	Stranger vs Object Stranger 1 vs Stranger 2	Cipen am Closed am WT WT WT WT WT WT HT WT	$\begin{split} & W^{-} = 10.4 \ B + 50.27 \\ & W^{-} = 10.4 \ B + 50.27 \\ & W^{-} = 30.27 \ D + 16.27 \\ & W^{-} = 20.25 \ A + 164 \\ & W^{-} = 20.25 \ A + 164 \\ & W^{-} = 20.25 \ A + 164 \\ & W^{-} = 20.25 \ A + 164 \\ & W^{-} = 10.25 \ B + 10.25 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 4.47 \\ & W^{-} = 0.05 \ B + 0.05 \\ & W^{-} = 0.05 \ B + 0.05 \\ & W^{-} = 0.05 \ B + 0.05 \\ & W^{-} = 0.05 \ B + 0.05 \\ & W^{-} = 0.05 \ B + 0.05 \\ & W^{-} = 0.05 \ B + 0.05 \\ & W^{-} = 0.05 \ B + 0.05 \\ & W^{-} = 0.05 \ B + 0.05 \\ & W^{-} = 0.05 \ B + 0.05 \\ & W^{-} = 0.05 \ B + 0.05 \\ & W^{-} = 0.05 \ B + 0.05 \\ & W^{-} = 0.05 \ A +$	Studer's test	p = 0.0564, re $p = 0.016, *$ $p = 0.016, *$ $p = 0.0007, re$ $p = 0.0007, re$ $p < 0.0007, **$ $p = 0.0008, **$	$\begin{split} (22+1)47 \\ (22+1)47 \\ (22) &= 2.366 \\ (22) &= 1.524 \\ (20) &= 0.0008 \\ (20) &= 0.0008 \\ (20) &= 0.0073 \\ (20) &= 0.45 \\ (2$	T iso tabled
5ugur	ople ntar ntar g, 2	d •	Elevated place maze		Male Male	2-3 months 2-3 months 2-3 months P3 P5	WT = 13 HT = 10 WT = 14 HT = 14 HT = 14 WT = 23 WT = 23	Time speet in amit (s) Distance moved (m) Uigit zone (s) Frequency of transition (coard) Coardiour sine (s) Coardiour sine (s) Coard outline (s) Call Austion (s) Call Austion (s) Call Austion (s)	Stranger vs Object	Closed am Closed am WT WT WT WT WT WT WT WT WT	$\begin{split} & W^{-} = 10.4 \text{B} + 10.37 \\ & W^{-} = 10.4 \text{B} + 10.37 \\ & W^{-} = 30.77 \text{s} + 10.77 \\ & W^{-} = 30.77 \text{s} + 10.77 \\ & W^{-} = 20.57 \text{s} + 10.47 \\ & W^{-} = 20.57 \text{s} + 10.47 \\ & W^{-} = 20.37 \text{s} + 10.47 \\ & W^{-} = 20.37 \text{s} + 10.37 \\ & W^{-} = 20.37 \text{s} + 10.37 \\ & W^{-} = 0.07 \text{s} + 10.37 \\ & W^{-} = 0.02 \text{s} + 10.77 \\ & W^{-} = 0.02 $	Studen's test Studen's test	p = 0.0084, re p = 0.0116, * p = 0.4177, re p = 0.8383, res p < 0.0097, res p < 0.0007, *** p < 0.0007, *** p < 0.0007, *** p = 0.0018, **	$\begin{array}{c} (22+1.747 \\ (222+1.747 \\ (222+2.206) \\ (322)+1.234 \\ (230)+0.0208 \\ (230)+0.0208 \\ (230)+0.0208 \\ (230)+0.0208 \\ (230)+0.018 \\ (230)+0$	T so taked
Sign of the second seco	spple	d •	Elevated place maze		Male Male	2-3 months 2-3 months 2-3 months P3 P5	WT = 13 HT = 10 WT = 14 HT = 14 HT = 14 WT = 23 HT = 23 HT = 23	Time speet in ami (s) Distance moved (m) Upt zone (s) Prequency of transform (court) Chamber sime (s) Chamber sime (s) Chamber sime (s) Chamber sime (s) Call number (court) Call number (court) Call number (court)	Stranger vs Otjact	Сропат Созонат ИТ ИТ ИТ ИТ ИТ ИТ ИТ ИТ ИТ ИТ	$\begin{split} & W^{-} = 10.48 \pm 0.07 \\ W^{-} = 10.48 \pm 0.07 \\ W^{-} = 30.79 \pm 0.07 \\ W^{-} = 30.29 \pm 1.44 \\ W^{-} = 20.29 \pm 1.44 \\ W^{-} = 30.29 \pm 1.40 \\ W^{-} = 10.09 \pm 1.40 \\ W^{-} = 10.00 \\ W^{-} $	Studen's least	p = 0.0046, re $p = 0.0116, *$ $p = 0.0117, re$ $p = 0.0107, re$ $p = 0.0007, ***$	$\begin{array}{c} (22+1.247\\ (22)+2.246\\ $	T so taked
Soon main main y Pi	pple ntar 19.2	d e a	Elevated place maze Light-dark box test 3-chamber test Pap ultrasoric vocalization		Male Male Pup	2.3 months 2.3 months 2.3 months P3 P5	WT = 13 HT = 10 WT = 14 HT = 14 WT = 23 WT = 23 WT = 23	Time speet in ami (s) Distance moved (m) Upt zone (s) Fequency of transition (court) Setting time (s) Chamber time (s) Chamber time (s) Chamber time (s) Call number (court) Call number (Stranger vs Object	Closed arm Closed arm WT HT WT HT WT HT HT HT	$\begin{split} & W^{-} = 10.4 \ B + 0.07 \\ W^{-} = 10.4 \ B + 0.07 \\ W^{-} = 30.27 \ D + 16.97 \\ W^{-} = 30.27 \ D + 16.97 \\ W^{-} = 30.27 \ D + 16.97 \\ W^{-} = 50.27 \ D + 16.97 \\ W^{-} = 50.97 \ D + 10.97 \\ $	Studen's test	p = 0.0546, re p = 0.0316, *p = 0.0316, *p = 0.0307, re p = 0.0307, re p = 0.0007, **p < 0.0007, **p < 0.0007, **p = 0.0007, **	$\begin{array}{c} (22+1.747 \\ (22)+1.747 \\ (22)+2.206 \\ (32)+1.634 \\$	T tio table T tio table
Sugar Su	ople ntar 1,	d o a	Elevated place maze Ugit-dank box text 3-chamber text Pup ultraceric vocalization		Male Male Pup	2.3 months 2.3 months 2.3 months 2.3 months P3 P5 P7	WT = 13 HT = 10 WT = 14 HT = 14 WT = 23 WT = 23 HT = 23 WT = 23	Time speer in am (s) Distance moved (m) Uptrame (s) Pequency of santistic (court) Setting time (s) Chamber time (s) Chamber time (s) Call subtor (s)	Stranger vs Object	Cipen am Closed am WT WT WT WT WT WT HT HT	$\begin{split} & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 30.27 \ D + 10.47 \\ & W^{-} = 20.25 \ A + 10.4 \\ & W^{-} = 20.25 \ A + 10.4 \\ & W^{-} = 20.25 \ A + 10.4 \\ & W^{-} = 20.25 \ A + 10.4 \\ & W^{-} = 10.25 \ B + 10.2 \\ & W^{-} = 0.05 \ B + 10.2 \\ & W^{-} = 0.05 \ B + 10.2 \\ & W^{-} = 0.05 \ B + 10.2 \\ & W^{-} = 0.05 \ B + 10.2 \\ & W^{-} = 0.05 \ B + 10.2 \\ & W^{-} = 0.05 \ A + 10.2 \\ & W^{-} = 0.05 \ $	Studer's test Studer's test	p = 0.0564, re $p = 0.016, *$ $p = 0.016, *$ $p = 0.007, re$ $p = 0.007, re$ $p < 0.007, **$ $p < 0.007, **$ $p < 0.007, **$ $p < 0.007, **$ $p < 0.005, **$ $p = 0.0051, re$ $p = 0.0051, re$ $p = 0.0051, re$ $p = 0.0051, re$	(22 + 1.47) (22 + 1.47) (22 + 2.286) (22 - 2.286) (22 - 1.54) (20 - 0.000) (20 - 0.007) (20 - 0.45) (20 - 0.45)	T so tabled
Suçi a	pple niar 1 1	d a b	Elevated pluss maze Light-dark box test 3-chamber test Pip ultrasoric vocalization		Male Male Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P5 P7	WT = 13 HT = 10 WT = 14 HT = 14 HT = 14 WT = 23 WT = 23 HT = 23 WT = 23 HT = 23	Time speet in ami (s) Distance moved (m) Uipt zone (s) Frequency of transfitsin (courd) Calumber sine (s)	Stranger vs Otjact Stranger 1 vs Stranger 2	Closed am Closed am WT WT WT WT WT WT WT MT	$\begin{split} & W^{-} = 10.4 \ B + 50.77 \\ & W^{-} = 10.4 \ B + 50.77 \\ & W^{-} = 30.77 \ b + 50.77 \\ & W^{-} = 30.77 \ b + 50.77 \\ & W^{-} = 20.25 \ a + 1.4 \\ & W^{-} = 20.25 \ a + 1.4 \\ & W^{-} = 20.25 \ a + 1.4 \\ & W^{-} = 20.25 \ a + 1.4 \\ & W^{-} = 0.01 \ b = 1.03 \ a + 4.6 \\ & W^{-} = 0.01 \ b = 1.03 \ a + 4.6 \\ & W^{-} = 0.01 \ b = 1.03 \ a + 4.6 \\ & W^{-} = 0.01 \ a + 1.03 \ a + 1.03 \\ & W^{-} = 0.01 \ a + 1.03 \ a + 1.03 \\ & W^{-} = 0.01 \ a + 1.03 \ a + 1.03 \\ & W^{-} = 0.01 \ a + 1.03 \ a + 1.03 \\ & W^{-} = 0.01 \ a + 1.03 \ a + 1.03 \\ & W^{-} = 0.01 \ a + 1.03 \ a + 1.03 \\ & W^{-} = 0.01 \ a + 1.03 \ a + 1.03 \\ & W^{-} = 0.01 \ a + 1.03 \ a + 1.03 \\ & W^{-} = 0.01 \ a + 1.03 \ a + 1.03 \\ & W^{-} = 0.02 \ a + 1.03 \\ & W^{-} = 0.01 \ a + 1.03 \\ & W^{-} = 0.01 \ a + 1.03 \\ & W$	Studen's test Studen's test	p = 0.0046, re p = 0.0146, **p = 0.0146, **p = 0.0016, **p = 0.0007, ***p = 0.0007, ***	(22 + 1.47) (22 + 1.47) (22 + 2.36) (22) - 2.360 (22) - 0.020 (20) - 0.020 (20) - 0.073 (20) - 0.073	T iso tabled
Bug Parts	pple ntar 1 g. 2 g. 2	d e a	Elevated place maze Light-dark box test 3-chamber test Pup ubrasorie vocalization		Male Male Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P5 P7 P9	WT = 13 HT = 10 WT = 14 HT = 14 HT = 23 WT = 23 HT = 23 WT = 23 WT = 23 HT = 23 HT = 23	Time speet in ami (s) Distance moved (m) Upt zone (s) Prequency of transform (court) Chamber time (s) Chamber time (s) Chamber time (s) Call duation (s) Call function (s) Call function (s) Call function (s) Call function (s) Call duation (s) Ca	Stranger vs Object Stranger 1 vs Stranger 2	Срепат Сізна ат ИТ ИТ ИТ ИТ ИТ ИТ ИТ ИТ ИТ	$\begin{split} & W^{-} = 10.4 \text{M} = 50.27 \\ & W^{-} = 10.4 \text{M} = 10.27 \\ & W^{-} = 30.27 \text{D} = 40.77 \\ & W^{-} = 30.77 \text{D} = 40.77 \\ & W^{-} = 20.07 \text{D} = 40.47 \\ & W^{-} = 20.07 \text{D} = 10.07 $	Studen's test Studen's test	p = 0.0546, re $p = 0.0316, *$ $p = 0.0316, *$ $p = 0.0005, re$ $p = 0.0005, re$ $p = 0.0005, ***$ $p = 0.0005, re$	(22 + 1.747) (22 + 1.747) (22 + 2.766) (22 - 2.766)	T tio tabled
Birging and a second seco	ople ntar 19, 2	d a b	Elevated place maze Light-dark box test 3-chamber test Pup ultrasoric vocabzation		Male Male Male	2.3 months 2.3 months 2.3 months P3 P5 P7 P9	WT = 13 HT = 10 WT = 14 HT = 23 WT = 23 WT = 23 WT = 23 WT = 23 WT = 23	Time speet in amil (s) Distance moved (m) Upt zone (s) Fequency of tradition (court) Softing time (s) Charaber time (s) Charaber time (s) Charaber time (s) Call duation (s)	Stranger vs Object	Closed arm Closed arm WT MT WT MT MT WT MT MT	$\begin{split} & W^{-} = 10.4 \ B + 10.27 \\ W^{-} = 10.4 \ B + 10.27 \\ W^{-} = 10.27 \ D + 10.27 \\ W^{-} = 30.27 \ D + 10.27 \\ W^{-} = 30.27 \ D + 10.27 \\ W^{-} = 50.27 \ D + 10.27 $	Studer's test Studer's test	p = 0.0546, re p = 0.0316, * p = 0.0316, * p = 0.0307, re p = 0.0307, re p < 0.0007, ** p = 0.0008, * p = 0.0008, * p = 0.0008, * p = 0.0007, **	$\begin{array}{c} (22+1.747 \\ (22)+1.747 \\ (22)+2.206 \\ (32)+1.634 \\ (32)+0.00073 \\ (32)+0.0$	T iso tabled
Sugar Sug	pple ntar g, 2	d a b c	Elevated place mase Light-dark box test		Malo Malo Pup Malo	2.3 months 2.3 months 2.3 months 2.3 months P3 P5 P7 P9 2.3 months	WT = 13 HT = 10 WT = 14 HT = 14 WT = 23 WT = 23	Time speet in am (s) Distance moved (m) Uppt zone (s) Pequency of santition (court) Setting time (s) Chamber time (s) Coll duration (s) Call Austion (s) Call A	Stranger vs Object	Cipen am Closed am WT WT WT WT WT WT WT HT	$\begin{split} & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 30.27 \ D + 10.47 \\ & W^{-} = 30.27 \ D + 10.47 \\ & W^{-} = 30.27 \ D + 10.47 \\ & W^{-} = 30.27 \ D + 10.47 \\ & W^{-} = 50.27 \ D + 10.47 \\ & W^$	Studer's test	p = 0.0564, re p = 0.016, * p = 0.017, re p = 0.007, re p = 0.007, re p < 0.007, ** p = 0.008, * p < 0.007, ** p = 0.008, ** p = 0.008, ** p = 0.008, ** p = 0.007, **	$\begin{array}{c} (22+1.747 \\ (22)+1.747 \\ (22)+2.256 \\ (22)+2.564 \\ (23)+0.0038 \\ (20)+0.0038 \\ (20)+0.0038 \\ (20)+0.65 \\ (2$	T iso tabled
Sirging and the second s		d a b c d	Elevated place maxe Light-dark box test		Male Male Pup Male Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P3 P3 P3 2.3 months 2.3 months	WT = 13 HT = 10 WT = 14 HT = 14 HT = 23 WT = 23 HT = 23 HT = 23 HT = 23 HT = 23 HT = 23 HT = 21 HT = 11	Time speet in am (s) Destance moved (m) Uipt zone (s) Feagurey of transition (courd) Chamber time (s) Chamber time (s) Call duration (s) C	Stranger vs Otject	Closed am Closed am WT WT WT HT WT HT WT HT GUT	$\begin{split} & W^{-} = 10.4 \ B + 50.27 \\ & W^{-} = 10.4 \ B + 50.27 \\ & W^{-} = 30.27 \ D + 16.27 \\ & W^{-} = 320.2 \ D + 16.4 \\ & W^{-} = 320.2 \ D + 16.4 \\ & W^{-} = 320.2 \ D + 16.4 \\ & W^{-} = 320.2 \ D + 16.4 \\ & W^{-} = 102.2 \ D + 16.4 \\ & W^{-} = 102.2 \ D + 16.4 \\ & W^{-} = 102.2 \ D + 16.4 \\ & W^{-} = 102.2 \ D + 16.4 \\ & W^{-} = 102.2 \ D + 16.4 \\ & W^{-} = 102.2 \ D + 16.4 \\ & W^{-} = 102.2 \ D + 16.4 \\ & W^{-} = 102.2 \ D + 16.4 \\ & U^{-} = 102.2 \ D + 16.4 \\ & U^{-} = 102.2 \ D + 16.4 \\ & U^{-} = 102.2 \ D + 16.4 \\ & U^{-} = 102.2 \ D + 102.2 \\ & U^{-} = 102.2 \ D + 17.2 \\ & U^{-} = $	Studer's test Studer's test	$\begin{tabular}{ c c c c c } \hline $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $ $	$\begin{array}{c} (22+1.747 \\ (22)+1.747 \\ (22)+2.256 \\ (22)+2.256 \\ (22)+2.256 \\ (22)+2.256 \\ (22)+2.256 \\ (22)+2.256 \\ (22)+2.256 \\ (22)+2.256 \\ (22)+2.256 \\ (22)+2.256 \\ (22)+2.256 \\ (22)+2.256 \\ (22)+2.256 \\ (24)+2.256 \\ (24)+2.256 \\ (24)+2.266 \\$	T so tabled
B injunction	ople nur 1 1 1	d a b c d	Elevated place maxe Light dark box test		Male Male Male Male Male Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P5 P7 P9 2.3 months 2.3 months	WT = 13 HT = 10 WT = 14 HT = 14 HT = 23 WT = 23 WT = 23 HT = 23 WT = 23 HT = 23 HT = 23 HT = 23	The spect is am (s) Destance moved (m) Upt zone (s) Frequency of transition (coard) Counteer sine (s) Counteer sine (s) Counteer sine (s) Coll duration (s)	Stranger vs Object	Closed am Closed am WT WT WT WT WT WT WT OT WT Closed and the second sec	$\begin{split} & W^{-} = 10.48 \pm 0.07\\ & W^{-} = 10.48 \pm 0.07\\ & W^{-} = 30.70 \pm 0.07\\ & W^{-} = 30.70 \pm 0.07\\ & W^{-} = 20.05 \pm 1.44\\ & W^{-} = 10.05 \pm 0.05\\ & W^{-} = 0.05 \pm 0.07\\ & W^{-} =$	Studen's test Studen's test	p = 0.0546, re $p = 0.0016, *$ $p = 0.0016, *$ $p = 0.0005, re$ $p = 0.0005, re$ $p = 0.0005, ***$ $p = 0.0005, re$	$\begin{array}{c} (22+1.747) \\ (322+1.747) \\ (322)+2.236) \\ (322)+1.234 \\ (322)+1.2$	T so taked
5 Guine and a second se		d a b b c d d	Elevated place maxe Light-dark box test		Male Male Male Male Male Male Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P5 P7 P3 2.3 months 2.3 months	WT = 13 HT = 10 WT = 14 HT = 23 HT = 23 WT = 23 WT = 23 WT = 23 WT = 23 WT = 23 HT = 23 WT = 13 HT = 11	Time speet in ami (s) Distance moved (m) Upt zone (s) Fequency of tradition (courd) Softing time (s) Charaber time (s) Charaber time (s) Charaber time (s) Call duation (s) Call	Stranger vs Object	Closed arm Closed arm WT WT WT WT WT WT WT WT WT UT UT	$\begin{split} & W^{-} = 10.4 \ B + 10.27 \\ W^{-} = 10.4 \ B + 10.27 \\ W^{-} = 10.27 \ D + 10.27 \\ W^{-} = 30.27 \ D + 10.27 \\ W^{-} = 30.27 \ D + 10.27 \\ W^{-} = 50.27 \ D + 10.27 \ D + 10.27 \\ W^{-} = 50.27 \ D + 10.27 \\ W^{-} = 50.27 $	Suder's test Studer's test	p = 0.0546, re p = 0.0316, * p = 0.0316, * p = 0.0307, re p = 0.0307, re p < 0.0007, ** p < 0.	$\begin{array}{c} (22+1.747 \\ (22)+1.747 \\ (22)+2.206 \\ (32)+1.634 \\$	T iso tabled
5 right median states and states	ople niar g. 2	d e a b c d d	Elevated place mase Light-dark box test Jught-dark box test		Male Male Male Male Pup Male Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P5 P5 P5 P3 P3 P3 P5 P3 P3 P5 P3 P3 P5 P3 P3 P3 P5 P3 P3 P5 P3 P3 P3 P3 P3 P5 P3 P5 P5 P5 P5 P5 P5 P5 P5 P5 P5 P5 P5 P5	WT = 13 HT = 10 WT = 14 HT = 14 WT = 23 WT = 23 WT = 23 WT = 23 HT = 23 WT = 23 HT = 23 WT = 23 HT = 23	Time speet in am (s) Distance moved (m) Upt zone (s) Pequency of santistic (court) Setting time (s) Chamber time (s) Coll duration (s) Call Austion (s) Call Au	Stranger vs Object	Cipen am Closed am WT HT WT WT WT WT HT T UT HT 10 minutes	$\begin{split} & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 30.27 \ D + 10.47 \\ & W^{-} = 30.27 \ D + 10.47 \\ & W^{-} = 30.27 \ D + 10.47 \\ & W^{-} = 30.27 \ D + 10.47 \\ & W^{-} = 50.47 \ D + 10.47 \\ & W^{-} = 50.47 \ D + 10.47 \\ & W^{-} = 50.47 \ D + 10.47 \\ & W^{-} = 50.47 \ D + 10.47 \\ & W^{-} = 50.47 \ D + 10.47 \\ & W^{-} = 50.47 \ D + 10.47 \\ & W^{-} = 50.47 \ D + 10.47 \\ & W^{-} = 50.47 \ D + 10.47 \\ & W^{-} = 50.47 \ D + 10.47 \\ & W^{-} = 50.47 \ D + 10.47 \\ & W^{-} = 50.47 \ D + 10.47 \\ & W^{-} = 50.47 \ D + 10.47 \\ & W^{-} = 50.47 \ D + 10.47 \\ & W^$	Studer's test	p = 0.0564, re p = 0.016, * p = 0.017, re p = 0.007, re p = 0.007, re p < 0.007, ** p = 0.008, * p < 0.007, ** p = 0.008, ** p = 0.008, ** p = 0.008, ** p = 0.007, **	$\begin{array}{c} (22+1.57) \\ (22+1.57) \\ (22+2.56) \\ (22) = 2.56) \\ (22) = 1.54 \\ (23) = 0.003 \\ (20) = 0.$	T iso tabled
5 ing management	ople nar 1	d e b c d	Elevated place maxe Light dark box test		Male Male Male Pup Male Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P5 P7 P9 2.3 months 2.3 months	WT = 13 HT = 10 WT = 14 HT = 14 HT = 23 WT = 23 WT = 23 HT = 23 WT = 23 WT = 23 HT = 23 WT = 23 HT = 21 HT = 11	Time speet in ami (s) Destance moved (m) Uipt zone (s) Frequency of transfision (courd) Counteer sine (s) Counteer sine	Stranger vs Object Stranger 1 vs Stranger 2	Closed am Closed am WT WT WT WT WT WT WT UT	$\begin{split} & W^{-} = 10.4 \ B + 10.07 \\ & W^{-} = 10.4 \ B + 10.07 \\ & W^{-} = 30.07 \ D + 10.07 \\ & W^{-} = 320.7 \ D + 10.07 \\ & W^{-} = 320.7 \ D + 10.07 \\ & W^{-} = 220.5 \ L + 10.07 \\ & W^{-} = 220.5 \ L + 10.07 \\ & W^{-} = 220.5 \ L + 10.07 \\ & W^{-} = 220.5 \ L + 10.07 \\ & W^{-} = 220.5 \ L + 10.07 \\ & W^{-} = 220.5 \ L + 10.07 \\ & W^{-} = 20.07 \ L + 10.07 \\ & W^{-} = 10.07 \ L + 10.07 \\ & W^$	Suder's test Suder	p = 0.0046, re p = 0.016, ** p = 0.016, ** p = 0.0016, ** p = 0.0007, *** p < 0.000	U22 - 1.47 U22 - 1.47 U22 - 2.286 U22 - 2.286 U22 - 1.54 U20 - 0.028 U40 - 0.235 U40 - 0.238 U40 - 0.238 U40 - 0.249 U4177 U40 - 0.249 U40 - 0.258 U40 - 0.258 U40 - 0.271 U20 - 0.6005	T so tabled
Seg	pple ntar g. 2	d a b c d	Elevated place maxe Light dark box test		Male Male Pup Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P3 P3 P3 P3 2.3 months 2.3 months	WT = 13 HT = 10 WT = 14 HT = 14 HT = 23 WT = 23 WT = 23 HT = 23 WT = 23 HT = 23 HT = 23 HT = 23 HT = 23	The spect is am (s) Destance moved (m) Upt zone (s) Frequency of transition (coard) Counteer sine (s)	Stranger va Object Stranger 1 va Stranger 2 Luget off (o bas)	Closed am Closed am WT WT WT WT WT WT WT WT WT OT WT OT D U U U U U U U U U U U U U U U U U U	$\begin{split} & W^{-} = 10.4 \ \text{B} + 50.7 \\ & W^{-} = 10.4 \ \text{B} + 50.7 \\ & W^{-} = 30.7 \ \text{D} + 50.7 \ \text{D} + 50.7 \\ & W^{-} = 20.7 \ \text{D} + 50.7 \\ & W^{-} = 20.5 \ \text{D} + 14.4 \\ & W^{-} = 20.5 \ \text{D} + 14.4 \\ & W^{-} = 20.5 \ \text{D} + 14.4 \\ & W^{-} = 20.5 \ \text{D} + 14.4 \\ & W^{-} = 20.5 \ \text{D} + 14.4 \\ & W^{-} = 20.5 \ \text{D} + 14.4 \\ & W^{-} = 20.5 \ \text{D} + 14.4 \\ & W^{-} = 20.5 \ \text{D} + 14.4 \\ & W^{-} = 20.5 \ \text{D} + 14.2 \\ & W^{-} = 20.5 \ \text{D} + 14.2 \\ & W^{-} = 20.5 \ \text{D} + 14.2 \\ & W^{-} = 20.5 \ \text{D} + 14.2 \\ & W^{-} = 20.5 \ \text{D} + 12.2 \\ & W^{-} = 20.5 \ \text{D} + 12.2 \\ & W^{-} = 20.5 \ \text{D} + 12.2 \\ & W^{-} = 20.2 \ \text{D} + 12.2 \\ & W^{-} = 10.2 \ \text{D} + 12.2 \\ & W^{-} = 10.2 \ \text{D} + 12.2 \\ & W^{-} = 10.2 \ \text{D} + 12.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 20.2 \ \text{D} + 14.2 \\ & W^{-} = 20.2 \ \text{D} + 14.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 10.2 \ \text{D} + 14.2 \\ & W^{-} = 10.$	Suder's test Sude	p = 0.0566, re $p = 0.0016, *$ $p = 0.0016, *$ $p = 0.0007, **$ $p = 0.0007, ***$	U22 = 1.747 U22 = 1.747 U22 = 1.747 U22 = 2.256 U22 = 1.244 U20 = 1.244 U20 = 1.244 U20 = 0.273 U20 = 0.214 U20 = 0.212 U20 = 0.212 U20 = 0.212 U40 = 0.212 U20 = 0.212 U20 = 0.212 U21 = 0.202 U21 = 0.212 U21 = 0.212 U21 = 0.212 U21 = 0.212	Two tabled Tw
Biographic State	pple	d e a b b d d	Elevated plase maze Light dark box test		Male Male Male Pup Pup Male Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P5 P7 P9 2.3 months 2.3 months	WT = 13 HT = 10 WT = 14 HT = 14 HT = 23 WT = 23 HT = 23 HT = 23 HT = 23 HT = 23 HT = 23 HT = 13 HT = 11	Time speet in aim (s) Destance moved (m) Light zone (s) Fequancy of transition (court) Calculater time (s) Calculater (court)	Stranger vs Object Stranger 1 vs Stranger 2 Light off (0 las)	Closed arm Closed arm WT WT WT WT WT WT WT WT HT WT OT NT WT OT NT WT	$\begin{split} & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 30.27 \ D + 10.27 \\ & W^{-} = 30.27 \ D + 10.27 \\ & W^{-} = 30.27 \ D + 10.27 \\ & W^{-} = 50.2 \ D + 10.27 \\ & W^{-} = 50.2 \ D + 10.27 \\ & W^{-} =$	Suder's test Suder	p = 0.0546, re $p = 0.0316, *$ $p = 0.0316, *$ $p = 0.0307, re$ $p = 0.0307, re$ $p = 0.0007, ***$	$\begin{array}{c} (22+1.747 \\ (22+1.747 \\ (22) - 2.206 \\ (22) - 1.534 \\ (23) - 0.0001 \\ (23) - 0.0001 \\ (23) - 0.0071 \\ ($	T iso tabled T iso
5 GG 7	Pp8e 1	d a a b b c d d	Elevated place maxe Light-dark box test		Male Male Male Pup Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3	WT = 13 HT = 10 WT = 14 HT = 14 WT = 23 WT = 23 WT = 23 WT = 23 HT = 23 WT = 23 HT = 23	Time speet in am (s) Distance moved (m) Uptranne (s) Frequency of transfism (court) Calenther time (s) Calenther time (s) Calenther time (s) Cale duration (Stranger vs Object Stranger 1 vs Stranger 2 Light off (b lue)	Cipen am Closed am WT MT WT WT WT HT WT HT C UT MT UT O T O T O minutes 20 minutes 20 minutes 20 minutes 20 minutes 20 minutes 20 minutes	$\begin{split} & W^{-} = 10.4 \ B + 10.07 \\ & W^{-} = 10.4 \ B + 10.07 \\ & W^{-} = 20.07 \ b + 10.07 \\ & W^$	Buder's test Buder's test Buder's test Buder's test Studer's test Studer's test Buder's test Studer's test	p = 0.0546, re p = 0.016, * p = 0.017, re p = 0.007, re p = 0.007, re p < 0.007, ** p = 0.007, *	$\begin{array}{c} (22+1.47) \\ (22+1.47) \\ (22) = 2.296 \\ (22) = 2.296 \\ (22) = 2.296 \\ (22) = 2.296 \\ (22) = 2.296 \\ (22) = 2.296 \\ (22) = 0.2073 \\ (22) = 0.45 \\ (22) $	Two tabled Tw
ning market and the second sec		d a b c d d	Elevated place maxe Light dark box test		Male Male Male Pup Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P3 P3 P3 2.3 months 2.3 months	WT = 13 HT = 10 WT = 14 HT = 14 HT = 23 WT = 23 WT = 23 WT = 23 WT = 23 WT = 23 HT = 23 WT = 23 HT = 11	Time speet in ami (s) Distance moved (m) Uipt zone (s) Frequency of tradition (courd) Chamber sine (s) Chamber sine (s) Chamber sine (s) Call duration (s) C	Stranger vs Otjact Stranger 1 vs Stranger 2 Light off (D ba)	Closed am Closed am WT WT WT WT WT WT WT MT WT MT OT NT OT Solution Closed am Solution Closed am WT MT MT MT MT MT MT MT MT MT MT MT MT MT	$\begin{split} & W^{-} = 10.4 \ B + 50.7 \\ & W^{-} = 10.4 \ B + 50.7 \\ & W^{-} = 30.7 \ D + 10.7 \\ & W^{-} = 30.7 \ D + 10.7 \\ & W^{-} = 30.7 \ D + 10.7 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.4 \\ & W^{-} = 20.2 \ D + 1.7 \\ & W^{-} = 20.2 \ D + 1.7 \\ & W^{-} = 20.2 \ H + 1.7 \\ & W^{-} = 20$	Suder's test Suder	p = 0.0546, re $p = 0.0016, *$ $p = 0.0016, *$ $p = 0.0000, ***$	(U2) = 1.747 (U2) = 1.747 (U2) = 2.256 (U2) = 1.544 (U2) = 1.544 (U2) = 1.544 (U2) = 0.6773 (U2) = 0.677	Two tabled Tw
singer y PR	pple	a a b d d	Elevated place maxe Light dark hos test		Male Male Male Pup Male Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3	WT = 13 HT = 10 WT = 14 HT = 14 HT = 23 WT = 23 WT = 23 WT = 23 WT = 23 WT = 23 HT = 23 WT = 13 HT = 11	Time speet in am (s) Destance moved (m) Upt zone (s) Fequency of transition (court) Softing time (s) Character time (s) Character time (s) Call dustion (s) Cal	Stranger vs Object Stranger 1 vs Stranger 2 Ligit off (0 ke)	Closed arm Closed arm WT MT WT WT WT WT WT MT WT 1 WT 1 UT 1 0 T 1 0 minutes 30 minutes 10 minutes	$\begin{split} & W^{-} = 10.4 \ B = 10.27 \\ & W^{-} = 10.4 \ B = 10.27 \\ & W^{-} = 30.27 \ D = 16.27 \\ & W^{-} = 30.27 \ D = 16.27 \\ & W^{-} = 50.27 \ D = 16.27 \\ & W^{-} = 50.27 \ D = 16.27 \\ & W^{-} = 50.27 \ D = 16.27 \\ & W^{-} = 50.27 \ D = 10.27 \\ & W^$	Suder's test Suder	p = 0.0546, re $p = 0.0316, *$ $p = 0.0316, *$ $p = 0.0307, re$ $p = 0.0307, re$ $p = 0.0007, ***$ $p = 0.0007, ****$ $p = 0.0007, ****$ $p = 0.0007, *****$ $p = 0.0007, **********************************$	U22 = 1.747 U22 = 1.747 U22 = 2.206 U22 = 2.206 U22 = 2.206 U20 = 0.634 U20 = 0.647 U20 = 0.677 U20 = 0.677 U20 = 0.677 U20 = 0.673 U20 = 0.671 U20 = 0.671 U20 = 0.671 U20 = 0.512 U20 = 0.512 U20 = 0.512 U40 = 2.201 U = 174 U40 = 2.202 U40 = 1.749 U40 = 2.082 U40 = 1.721 U21 = 0.505 U21 = 0.505 U21 = 0.505 U21 = 0.507	Tisc tabled Tisc ta
5 Gog Teneration of the second	ppla g, 2 g, 2 i i i i i i i i i i i i i i i i i i i	a • • •	Einvated plases maxes Light-chark box teel		Male Male Male Pup Male Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3	WT = 13 HT = 10 WT = 14 WT = 23 HT = 23 WT = 11	Time speet in am (s) Distance moved (m) Upt zone (s) Prequency of santition (court) Columber time (s) Columber time (s) Coll Austrian (s) Distance moved (m)	Stranger vs Object Stranger 1 vs Stranger 2 Light off (0 ks)	Cipen am Closed am WT MT WT WT WT WT WT MT WT I WT I U T O T O T O T O T O T O T O T O T O T	$\begin{split} & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 30.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 10.47 \ D + 10.47 \\ & W^{-} = 10.47 \ D + 10.47 \\ & W^$	Suder's test Suder	p = 0.0564, re $p = 0.016, *$ $p = 0.016, *$ $p = 0.007, re$ $p = 0.007, re$ $p = 0.007, **$	$\begin{array}{c} (22+1.77\\ (22)+1.77\\ (22)+2.296\\ (22)+1.54\\ (23)+0.003\\ (23)+0.003\\ (23)+0.003\\ (23)+0.65\\ ($	Tixo tabled Tixo ta
Transmission (Constraint)	ppla ppla g, 2 i i i i i i i i i i i i i	а а а а а а а а	Eterrated place maxes Light dark box test		Male Male Male Pup Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3	WT = 13 HT = 10 WT = 14 HT = 23 WT = 13 HT = 11	Time speet in ami (s) Destance moved (m) Upt zone (s) Feegancy of sandison (courd) Calendar time (s) Calendar (courd) Calendarion (s) Calendarion (s	Stranger vs Object Stranger 1 vs Stranger 2 Light off (D La)	Closed am Closed am WT MT WT MT MT MT MT MT MT MT MT MT MT MT MT MT	$\begin{split} & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 30.27 \ D + 10.27 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 10.27 \ D + 10.27 \\ & W^$	Suder's test Suder	p = 0.0546, re p = 0.016, * p = 0.016, * p = 0.007, re p < 0.007, re p < 0.007, re p < 0.007, ** p < 0.007, ** p < 0.007, ** p < 0.001, **	U22 = 1.47 U22 = 1.47 U22 = 2.286 U22 = 2.286 U20 = 0.008 U20 = 0.45 U20 = 5.12 U20 = 5.12 U20 = 5.12 U20 = 5.235 U20 = 4.501 U40 = 5.281 U40 = 5.292 U40 = 1.70 U40 = 1.710 U40 = 1.271 U22 = 0.4005 Variation (FI, T2, T2, T3, T4, T4) Variation (FI, T2, T4, T4) VARIATION (FI, T4, T4) <th>Two tabled Two tabled Tw</th>	Two tabled Tw
Beginstein State	2000 nau 100 0,2 0,2 0,2 0,0 0,0 0,0 0,0 0,0 0,0 0	a a b c d a	Elevated place maxes Light dark box test		Male Male Pup Male	2.3 months 2.3 months 2.3 months 2.3 months P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3	WT = 13 HT = 10 WT = 14 HT = 14 WT = 23 WT = 23 WT = 23 WT = 23 WT = 23 WT = 23 WT = 13 HT = 11	Time speet in ami (s) Distance moved (m) Upt zone (s) Fequency of tradition (court) Softing time (s) Chamber time time (s) Chamber time time (s) Chamber time time time (s) Chamber time time time time time (s) Chamber time time time time time time time time	Stranger vs Object Stranger vs Object Light off (D las)	Closed arm Closed arm WT HT WT MT WT WT WT HT WT HT WT O T WT O T O T O T O T O T O T O T	$\begin{split} & W^{-1} = 10.4 \ B + 10.27 \\ W^{-1} = 10.2 \ B + 10.27 \\ W^{-1} = 30.27 \ D + 10.27 \$	Suder's test Sude's test Sude's test Sude's test Suder's test Sude	p = 0.0546, re $p = 0.0316, *$ $p = 0.0316, *$ $p = 0.0307, re$ $p = 0.0007, ***$ $p = 0.0007, ****$ $p = 0.0007, **********************************$	U2 = 1.727 U2 = 1.727 U2 = 2.206 U2 = 0.201 U4 = 0.201 U2 = 0.202 U4 = 0.201 U2 = 0.202 U2	Two tabled Tw
5 000 000 000 000 000 000 000 000 000 0	2 ppbe	a • • •	Elevated place makes Light dark box test		Male Male Male Pup Pup Male Male	2.3 months 2.3 months 2.3 months 2.3 months P3 2.3 months 2.3 months 2.3 months 2.3 months 2.3 months 2.3 months 2.3 months 2.3 months 2.4 months P5 2.3 mon	WT = 13 HT = 10 WT = 14 HT = 14 WT = 23 WT = 23 WT = 23 WT = 23 WT = 23 WT = 23 HT = 23 WT = 11	Time speet in aim (s) Destance moved (m) Light zone (s) Fequancy of transition (court) Columber time (s) Columber time (s) Coll duration (Stranger vs Object Stranger 1 vs Stranger 2 Light off (0 ba) Light off (0 ba)	Closed arm Closed arm WT MT WT WT WT WT MT WT MT WT MT O' T WT MT O' T MT MT O' T MT MT O' T MT MT O' T MT MT O' T MT MT MT MT MT MT MT MT MT MT MT MT M	$\begin{split} & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 30.27 \ D + 10.27 \\ & W^{-} = 30.27 \ D + 10.27 \\ & W^{-} = 30.27 \ D + 10.27 \\ & W^{-} = 50.2 \ D + 10.27 \\ & W^{-} = 50.2 \ $	Buder's test B	p = 0.0546, re p = 0.016, * p = 0.017, re p = 0.0397, re 0 = 0.0007, ** p = 0.0008, ** p = 0.0	(U2) = 1.747 (U2) = 2.756 (U2) = 2.556 (U2) = 0.0001 (U2) = 0.0071 (U2) = 0.0071 (U2) = 0.0071 (U2) = 0.0071 (U2) = 0.0071 (U2) = 0.614 (U2) = 0.	T so tabled T so t
Single Si	pple pple	a a b c a a a a	Eterrater place maxes Light dark hox text		Male Male Male Male Pup Pup Renate	2.3 months 2.3 months 2.4 months 2.4 months 2.5 months	WT = 13 HT = 10 WT = 14 HT = 14 WT = 23 WT = 11 HT = 11	The speet in am (s) Distance moved (m) Uptrane (s) Feagurey of transition (court) Cohendrar time (s) Distance moved (m) Speed (min)	Stranger vs Object Stranger vs Object Light off (D las)	Closed am Closed am WT MT WT MT WT MT WT HT WT MT Closed MT MT MT MT MT MT MT MT MT MT MT MT MT	$\begin{split} & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 10.47 \ D + 10.47 \\ & W^{-} = 10.47 \ D + 10.47 \\ & W^$	Buder's test Budeder's test Buder's test Buder's test Buder's test	p = 0.0546, re p = 0.016, * p = 0.017, ** p = 0.007, ** p < 0.007, *	(U2) = 1.747 (U2) = 2.747 (U2) = 2.256 (U2) = 2.003 (U3) = 0.0071 (U3) = 0.0071 (U3) = 0.45 (U3) = 0.514 (U3) = 0.514 (U3) = 0.514 (U3) = 0.514 (U3) = 0.514 (U3) = 0.514 (U3) = 0.514 (U4) = 0.512 (U4) = 0.512 (U4) = 0.512 (U4) = 0.514 (U4) = 0.512 (U4) = 0.514 (U4) = 0.512 (U4) = 0.514 (U4) =	Tixo tabled Tixo ta
fing many provided the second se		а • • • • • • • • • • • • • • • • • • •	Eterrated place marce Light dark box test		Male Male Male Pup Pup Male Female	2.3 months 2.3 months 2.3 months 2.3 months P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3	WT = 13 HT = 10 WT = 14 HT = 14 HT = 23 WT = 11	Time speet in ami (s) Destance moved (m) Uipt zone (s) Frequency of transition (courd) Calmenter time (s) Calmenter (courd) Calmenter	Stranger vs Object Stranger vs Object Light off (D ba) Light off (D ba)	Closed am Closed am WT WT HT WT MT MT MT MT MT MT 0 MT MT MT 0 MT MT MT 0 MT MT MT MT MT MT MT MT MT MT MT MT MT	$\begin{split} & W^{-1} = 10.4 \ B + 10.27 \\ & W^{-1} = 10.27 \ D + 10.27 \\ & W^{-1} = 10.27 \ D + 10.27 \\ & W^{-1} = 20.27 \ D + 10.4 \\ & W^{-1} = 20.27 \ D + 10.4 \\ & W^{-1} = 20.27 \ D + 10.4 \\ & W^{-1} = 20.27 \ D + 10.4 \\ & W^{-1} = 20.27 \ D + 10.27 \\ &$	Suder's test Test Suder's test Test Suder's test Test Suder's test Test Suder's test Su	p = 0.0546, re $p = 0.0316, *$ $p = 0.0316, *$ $p = 0.0307, re$ $p = 0.0007, ***$ $p = 0.0007, ****$ $p = 0.0007, **********************************$	(U2) = 1.747 (U2) = 1.747 (U2) = 2.256 (U2) = 1.024 (U2) = 1.024 (U2) = 0.077 (U2) = 0.0777 (U2) = 0.0777 (U2) = 0.0777 (U2) = 0.0777 (U2) = 0.077	Tisc tabled Tisc ta
Beginst	pple pple 0.2 0.2 0.2 0.4 0.4 0.4 0.4 0.4 0.4 0.4 0.4	a a b c d a a	Elevated place maxe Light dark hos test		Male Male Male Pup Pup Female	2.3 months 2.3 months 2.3 months 2.3 months P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3	WT = 13 HT = 10 WT = 14 HT = 23 WT = 11	Time speet in am (s) Distance moved (m) Upt zone (s) Fequency of tradition (courd) Softing time (s) Character time (s) Characte	Sitranger vs Object Sitranger 1 vs Sitranger 2 Light off (D Les) Light off (D Les)	Closed arm Closed arm WT MT MT WT MT WT MT MT MT 10 T WT 10 V V V V V V V V V V V V V V V V V	$\begin{split} & W^{-1} = 10.4 \ B + 10.27 \\ & W^{-1} = 10.27 \ D + 10.27 \\ & W^{-1} = 10.27 \ D + 10.27 \\ & W^{-1} = 30.27 \ D + 10.27 \\ & W^{-1} = 50.27 \ D + 10.27 \ D + 10.27 \\ & W^{-1} = 50.27 \ D + 10.27 \ D + 10.27 \\ & W^{-1} = 50.27 \ D + 10.27 $		p = 0.0546, re p = 0.0316, * p = 0.0316, * p = 0.0307, re p = 0.0307, re p = 0.0007, ** p = 0.0007, re p = 0.	U2 = 1.747 U2 = 1.747 U2 = 2.206 U2 = 2.206 U2 = 1.644 U2 = 0.645 U2 = 0.667 U2 = 0.673 U2 = 0.614 U2 = 0.723 U2 = 0.724 U4 = 0.773 U2 = 0.605 U2 = 0.617 U2	Tisc tabled Other tabled Tisc tabled Other tabled Other tabled Other tabled Other tabled Ot
Single Sector	pple nar g, 2	a a b c d d 2	Elevated plase maxe Light dark box test		Male Male Male Pup Pup Female	2.3 months 2.3 months 2.3 months 2.3 months 7.7 9.9 2.3 months 2.3 months 2.3 months 2.3 months 2.3 months 2.3 months 2.3 months 7.4 weeks	WT = 13 HT = 10 WT = 14 WT = 23 WT = 13 WT = 11	The speet in am (s) Distance moved (m) Upt zone (s) Prequency of surficing (court) Softing time (s) Chamber time (s) Chamber time (s) Call duration (s) Call	Stranger vs Object Stranger 1 vs Stranger 2 Light off (0 ks) Light off (0 ks)	Closed am Closed am WT MT WT WT WT WT WT WT MT WT UT UT O T M U WT MT WT MT WT MT WT MT WT MT WT MT WT MT MT MT MT MT MT MT MT MT MT MT MT MT	$\begin{split} & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^{-} = 50.27 \ D + 10.47 \\ & W^{-} = 50.27 \ D + 10.47 \\ & W^{-} = 50.27 \ D + 10.47 \\ & W^{-} = 50.27 \ D + 10.47 \\ & W^{-} = 50.27 \ D + 10.47 \\ & W^{-} = 50.27 \ D + 10.47 \\ & W^{-} = 50.27 \ D + 10.47 \\ & W^{-} = 50.27 \ D + 10.47 \\ & W^{-} = 50.27 \ D + 10.47 \\ & W^{-} = 50.27 \ D + 10.47 \\ & W^{-} = 50.27 \ D + 10.47 \\ & W^{-} = 50.27 \ D + 10.57 \\ & W^$	Sudor's test Sudo	p = 0.0546, re $p = 0.0146, **$ $p = 0.0316, **$ $p = 0.0307, re$ $p = 0.0307, re$ $p = 0.0007, ***$ $p = 0.0008, ***$	(U2) = 1.747 (U2) = 2.756 (U2) = 2.756 (U2) = 0.003 (U2) = 0.0071 (U2) = 0.45 (U3) = 0.45 (U4) = 0.45 (U4) = 0.45 (U4) = 0.45 (U5) = 0.45 (U4) = 0.45 (U5) = 0.45 (U4) = 0.45 (U5) = 0.45 (U5) = 0.45 (U5) = 0.45	Tiso tabled One tabled
Transmission (Constraint)	ppla ritar g, 2	a a b c d d a	Etenated place maxes Light dark box test		Male Male Male Pup Female	2.3 months 2.3 months 2.3 months 2.3 months P3 2.3 months 2.3 months 2.3 months 2.3 months 2.3 months 2.3 months 2.3 months 2.3 months P3 2.3 months P3 2.3 months P3 2.3 months P3 2.3 months P3 2.3 months P5 2.3	WT = 13 HT = 10 WT = 14 HT = 23 WT = 11 WT = 11	Time speet in ami (s) Destance moved (m) Upt zone (s) Feegancy of tradition (courd) Calmeter time (s) Calmeter (courd) Seed (minis) Calmeter (courd) Calmeter (courd) Calmeter (courd) Calmeter (courd) Calmeter (courd) Calmeter (courd) Tameter (courd) Time destance moved (m) Time destance moved (m)	Stranger vs Object Stranger vs Object Light off (D ba) Light off (D ba)	Closed am Closed am WT MT MT MT MT MT MT MT MT MT MT MT MT MT	$\begin{split} & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 10.4 \ B + 10.27 \\ & W^{-} = 20.27 \ D + 10.47 \\ & W^$	Buder's test Buder's test </th <th>p = 0.0546, re p = 0.016, * P = 0.016, * P = 0.000, ** P = 0.0000, ** P = 0.0000, ** P = 0.0000,</th> <th>(U2) = 1.727 (U2) = 1.727 (U2) = 2.236 (U2) = 1.524 (U2) = 1.524 (U2) = 1.524 (U2) = 1.524 (U2) = -0.773 (U2) = -0.773</th> <th>Tixo tabled Tixo tabled</th>	p = 0.0546, re p = 0.016, * P = 0.016, * P = 0.000, ** P = 0.0000, ** P = 0.0000, ** P = 0.0000,	(U2) = 1.727 (U2) = 1.727 (U2) = 2.236 (U2) = 1.524 (U2) = 1.524 (U2) = 1.524 (U2) = 1.524 (U2) = -0.773 (U2) = -0.773	Tixo tabled
Beginger y Fr		a	Elevated place marce Light dark box test		Male Male Pup Pup Female	2.3 months 2.3 months 2.3 months 2.3 months P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3 P3	WT = 13 HT = 10 WT = 14 WT = 23 WT = 13 HT = 11	Time speet in ami (s) Distance moved (m) Upt zone (s) Fequency of tradition (court) Softrag time (s) Character time (s) Charact	Stranger vs Object Stranger vs Object Stranger 1 vs Stranger 2 Light off (b las) Light off (b las)	Closed arm Closed arm WT HT WT HT WT WT HT WT HT WT NT O T WT O S WT O S S WT O S S S S S S S S S S S S S S S S S S	$\begin{split} & W^{-1} = 10.4 \ B = 10.27 \\ & W^{-1} = 10.2 \ D = 10.27 \\ & W^{-1} = 30.2 \ D = 10.27 \\ & W^{-1} = 30.2 \ D = 10.27 \\ & W^{-1} = 50.2 \ D = 10.27 \\ & $	Suder's test Studer's test <	p = 0.0546, re p = 0.0316, * P = 0.0316, * P = 0.0307, re P = 0.0007, ** P = 0.	U2 = 1.727 U2 = 1.727 U2 = 2.786 U2 = 2.786 U2 = 2.786 U2 = 2.786 U2 = 1.534 U2 = 0.531 U20 = 0.611 U20 = 5.104 U20 = 5.102 U40 = 5.231 U40 = 7.740 U20 = 7.840 U20 = 7.840 U20 = 7.8400 U = 71 V20 = 7.1400	Tixo tabled Tixo ta

1					1					HT = 204.60 ± 16.17				
						WT - 19	Light zone (s)			WT = 138.59 ± 11.30 HT = 139.09 ± 14.55	Student's t-test	p = 0.9790, ns	t(28) = 0.0266	Two-tailed
	c	Light-dark box test			3-4 months	HT = 12	Frequency of transition (count))			WT = 54.38 ± 3.35	Student's t-test	p = 0.8151, ns	t(28) = 0.2361	Two-tailed
	4	Formerd swimming test				WT = 14	Immobility time (s)			H1 = 55.83 ± 5.56 WT = 136.00 ± 11.97	Student's Litest	n = 0.1276 ps	1(22) = 1.5840	Two tailed
						HT = 10 WT = 13				HT = 107.1 ± 13.5 WT = 138.69 ± 11.13			-()	
	e	Tail suspension test				HT = 10	Immobility time (s)			HT = 139.00 ± 13.12	Student's t-test	p = 0.9858, ns	t(22) = 0.0180	Two-tailed
	a					n=4	mTOR/Tanc1 ratio in		Serum +	1.00 ± 0.00 (SD)	Student's Litest	n = 0.0258 °	1(5) = 2 945	Two tailed
	-	Communormacinitation					HEK293T cells (Fold change)		-serum 4 hr	2.57 ± 0.53 (SD)	Country a mass	p = 0.0230,	4(0) = 2.040	Two-taked
Supple	ь	(Western blotting)				n = 3	mTOR/Tanc1 ratio in	Vehicle	-serum 4 hr	3.42 ± 0.85 (SD)	Student's t-test	p = 0.0467, *	t(4) = 2.843	Two-tailed
mentar v Fig. 5							HER2031 Cells (Fold charge)	Rapamyoin	+serum -serum 4 hr	1.38 ± 0.53 (SD) 1.36 ± 0.38 (SD)	Student's t-test	p = 0.9735, ns	t(4) = 0.0353	Two-tailed
			Tanc1 overexpression (Empty vs Tanc1)					p-mTOR/mTOR		Empty = 1.00 ± 0.00 (SD)	Student's t-test	p = 0.0051, **	t(4) = 5.562	Two-tailed
	٩	Western blotting	Tanc2 overexpression					p-mTOR/mTOR		Empty = 1.00 ± 0.00 (SD)	Student's t-test	p = 0.0041, **	t(4) = 5.907	Two-tailed
-			(Empty vs Tanc2)							Tanc2 = 0.72 ± 0.04 (SD)				
								0.mTOR/mTOR	0 hr	1.00 ± 0.00 (SD)	One-way ANOVA	- 000001	E(2, 6) -	25.97 0 - 0.0004
								pinotanok	1 hr	2.02 ± 0.32 (SD)	Bonferroni's multiple comparison test	p = 0.0003, ***	r (x, u) =	30.37, p = 0.0004
								mTOR	0 hr 0.5 hr	1.00 ± 0.00 (SD) 1.42 ± 0.45 (SD)	One-way ANOVA	p = 0.8546. ns	F(2, 6) = 0	0.3685, p = 0.7064
									1 hr	1.16 ± 0.40 (SD)	bonenon a marple companion near	p > 0.9999, ns		
								Tanc1	0.5 hr	1.04 ± 0.02 (SD)	One-way ANOVA Bonferroni's multiple comparison test	p = 0.6933, ns	F(2, 6) =	3.735, p = 0.0884
									1 hr	1.02 ± 0.5 (SD) 1.00 ± 0.00 (SD)		p > 0.0820, ns		
								Tanc2	0.5 hr	0.82 ± 0.02 (SD)	One-way ANOVA Bonferroni's multiple comparison test	p = 0.0824, ns	F(2, 6) =	9.172, p = 0.0150
Supple		Western biottion					Protein levels normalized to		0 hr	1.00 ± 0.00 (SD)	One-way ANOVA	μ=0.0120,		
y Fig. 6	ь	(P2 fraction)				n#3	a-tubulin (Fold change)	PSD-95	0.5 hr 1 hr	1.19 ± 0.05 (SD) 1.21 ± 0.04 (SD)	Bonferroni's multiple comparison test	p = 0.0649, ns p = 0.0434, *	F(2, 6) =	7.057, p = 0.0265
								n-Bantor/Bantor	0 hr	1.00 ± 0.00 (SD)	One-way ANOVA	- 0.0007 11	E(2, 6) =	1254 p=0.0072
									1 hr	1.12 ± 0.0.06 (SD)	Bonferroni's multiple comparison test	p = 0.5771, ns	. (41.9) -	
								Raptor	0 hr 0.5 hr	1.00 ± 0.00 (SD) 1.17 ± 0.11 (SD)	One-way ANOVA Bonferron's multiple comparison test	p > 0.9999, ns	F(2, 6) = 0	0.9666, p = 0.4326
									1 hr	1.42 ± 0.17 (SD)		p = 0.6469, ns		
								PRAS40	0.5 hr	1.30 ± 0.15 (SD)	One-way ANOVA Bonferroni's multiple comparison test	p = 0.1272, ns	F(2, 6) =	14.92, p = 0.0047
									1 hr 0 hr	1.71 ± 0.05 (SD) 1.00 ± 0.00 (SD)		p = 0.0038, **		
								Deptor	0.5 hr	1.00 ± 0.13 (SD) 1.47 ± 0.14 (SD)	Bonferron's multiple comparison test	p > 0.9999, ns p = 0.0488. *	F(2, 6) =	5.93, p = 0.0379
					1									
									P1	0.68 ± 0.09 (SD)				
								Tanc1_total	P7 P14	1.33 ± 0.43 (SD) 6.22 ± 3.34 (SD)				
									P21 P28	11.8 ± 4.05 (SD) 15.62 ± 5.54 (SD)				
								Tanc2_total	E18	1.00 ± 0.00 (SD)				
									P1 P7	0.81 ± 0.07 (SD) 1.11 ± 0.32 (SD)				
									P14 P21	1.07 ± 0.49 (SD) 0.78 ± 0.28 (SD)				
									P28	P28 0.62 ± 0.28 (SD) E18 1.00 ± 0.00 (SD)				
									P1	1.1 ± 0.22 (SD)				
								PSD-95_total	P7 P14	5.10 ± 1.16 (SD) 15.2 ± 3.72 (SD)				
									P21 P28	19.83 ± 8.45 (SD) 23.25 ± 11.21 (SD)				
									E18	1.00 ± 0.00 (SD)				
								Deptor_total	P1 P7	0.88 ± 0.11 (SD) 1.59 ± 0.36 (SD)				
									P14 P21	3.18 ± 1.28 (SD) 4.90 ± 3.23 (SD)				
Supple		Western blotting					Protein levels normalized to	PRAS40_total	P28	4.82 ± 3.39 (SD)				
mentar y Fig. 7	c					n=3	j≎actin (Fold change)		P1	0.92 ± 0.08 (SD)				
									P7 P14	1.39 ± 0.45 (SD)				
									P21 P28	1.78 ± 0.98 (SD) 1.68 ± 1.01 (SD)				
									P7 P14	1.00 ± 0.00 (SD) 3.60 ± 1.22 (SD)				
								Tanc1_P2	P21	5.01 ± 2.50 (SD)	1			
									P7	0.70 ± 3.59 (SD) 1.00 ± 0.00 (SD)				
								Tanc2_P2	P14 P21	0.71 ± 0.15 (SD) 0.46 ± 0.19 (SD)				
									P28 P7	0.33 ± 0.13 (SD) 1.00 ± 0.00 (SD)				
								PSD-95_P2	P14	3.38 ± 0.53 (SD)	1			
									P21 P28	5.08 ± 2.17 (SD) 6.51 ± 2.84 (SD)				
									P7 P14	1.00 ± 0.00 (SD) 2.75 ± 1.07 (SD)				
								Deptor_P2	P21	3.03 ± 1.00 (SD)				
									P20	1.00 ± 0.00 (SD)				
								PRAS40_P2	P14 P21	1.25 ± 0.33 (SD) 1.09 ± 0.47 (SD)				
┣				1	1	I	1		P28	1.04 ± 0.47 (SD)			1	
								Tanc2/actin	Control	1.00 ± 0.00 (SD)	Student's t-test	p = 0.0004, ***	t	4) = 10.66
								p-S6/S6	Control	1.00 ± 0.00 (SD)	Student's t-test	p = 0.0019, **		(4) = 7.27
								0.4E-00/4E 00	Tanc2 shRNA Control	1.73 ± 0.17 (SD) 1.00 ± 0.00 (SD)	Chudeor	0-00000		(A) - 7 A
								pre-onveron	Tanc2 shRNA Control	1.57 ± 0.13 (SD) 1.00 ± 0.00 (SD)	oracient 5 (*856	p = 0.0010,		
							Protein levels normalized to	p-Akt/Akt	Tanc2 shRNA	1.30 ± 0.09 (SD)	Student's t-test	p = 0.0045, **	t(4) = 5.761
		Western blotting	Control vs Tanc2 shRNA			n=3	b-actin (Fold change)	p-GSK3p/GSK3p	Tanc2 shRNA	1.00 ± 0.00 (SD) 1.39 ± 0.09 (SD)	Student's t-test	p = 0.0017, **	t	4) = 7.456
supple mentar v Fin °]				DIV14			p-S6/S6	Control Tanc2 shRNA	1.00 ± 0.00 (SD) 1.10 ± 0.05 (SD)	Student's t-test	p = 0.0273, *	10	4) = 3.397
ĺ								p-4E-BP/4E-BP	Control Tanc2 shRNA	1.00 ± 0.00 (SD) 1.01 ± 0.05 (SD)	Student's t-test	p = 0.6689, ns	t(4	4) = 0.4607
	ь							p-Akt/Akt	Control	1.00 ± 0.00 (SD)	Student's t-test	p = 0.2364, ns	ti	4) = 1.392
								p-GSK3N/35K3P	Lanc2 shRNA Control	1.07 ± 0.08 (SD) 1.00 ± 0.00 (SD)	Studen/'s t-test	p = 0.7421 ms	*6	i) = 0.3528
				1				Neuros - Auro	Tanc2 shRNA NeuN	1.02 ± 0.13 (SD) 86.98 ± 5.09 (SD)	Chudeor + ++	D = 0.0000 ***	4	M) - 64 13
	c	Immunocytochemistry	NeuN vs GFAP			n=13	Marker / DAPI (%)	Neuron cuture	GFAP Net N	1.03 ± 2.6 (SD)	Student's t-test	p < 0.0001, ***	tG	oy = 04.13
				1	1			Glia culture	GFAP	80.77 ± 10.34 (SD)	Student's t-test	p < 0.0001, ***	16	(4) = 26.06

Supplementary table 2. Primers used in this study

Mouse line	Primer name	Sequence (5'-)
	Tanc2 ^{+/-} -F	GGTTAGATAGGAAATAACCATCA
Tanc2 +/-	WT-B	ATGTGGCATATAAAGTTATACCTC
	Tanc2 ^{+/-} -B	TCCCCACAACGGGTTCTTCTG
T	Tanc2-fl-F	CTGTGCATGAAAGCTTCTGG
Tancz	Tanc2-fl-B	TCTCCACCTCCCTGGTACTG