

Supplementary Table 1. Antibodies used in Western blot studies.

Antibody	Host	Source/Catalog	WB dilution
Acetyl H3	Rabbit	Millipore/06-599	1:1000
H3	Rabbit	Cell Signaling/#9715	1:1000
Acetyl H4	Sheep	R&D Systems/AF5215	1:1000
H4	Rabbit	Cell Signaling/#2592	1:1000
HDAC2	Rabbit	Abcam/ab-12169	1:1000
p-H2A.X S139	Rabbit	Cell Signaling/#9718	1:1000
H2A.X	Rabbit	Cell Signaling/#2595	1:1000
H3K9me2	Rabbit	Cell Signaling/#4658	1:1000
TET2	Mouse	Santa Cruz/sc-398535	1:500
β-Catenin	Goat	Santa Cruz/sc-7963	1:500
BACE1	Rabbit	Cell Signaling/#5606	1:2000
sAPPβ	Rabbit	Covance/SIG-39139	1:1000
ADAM10	Rabbit	Abcam/ab1997	1:1000
mTORC1	Rabbit	Cell Signaling/#2501	1:1000
BCL2	Mouse	Cell Signaling/#2870	1:1000
NRF2	Rabbit	Santa Cruz/sc-722	1:500
GPX1	Rabbit	Novus Biological/NBP1-33620	1:1500
SOD1	Mouse	Calbiochem/574597	1:1000
Catalase	Rabbit	Abcam/ab16731	1:1000
NF-κβ	Rabbit	Cell Signaling/DE14E12	1:1000
p-Tau S396	Rabbit	Invitrogen/44752G	1:1000
p-Tau S404	Rabbit	Invitrogen/44758G	1:1000
Tau	Goat	Santa Cruz/sc-1995	1:500
p-GSK3β S9	Rabbit	Millipore/Clone 12B2	1:1000
GSK3β	Rabbit	Cell Signaling/#9315	1:1000
Beclin 1	Rabbit	Abcam/ab62557	1:1000
p-mTOR S2481	Rabbit	Santa Cruz/sc-293089	1:500
mTOR	Rabbit	Novus Biologicals/NB100-240	1:1000
LC3B	Rabbit	Cell Signaling/#2775	1:1000
GAPDH	Mouse	Millipore/MAB374	1:2000
β-Tubulin	Mouse	Millipore/Clone AA2	1:2000
Goat-anti-mouse HRP conjugated		Biorad/170-5047	1:2000
Goat-anti-rabbit HRP conjugated		Biorad/170-6515	1:2000
Donkey-anti-goat HRP conjugated		Santa Cruz/sc-2020	1:2000

Supplementary Table 2. Primers and probes used in qPCR studies.

SYBR-Green primers

Target	Product size (bp)	Forward primer (5'-3')	Reverse primer (5'-3')
<i>Sirt1</i>	229	AACACACACACAAAATCCAGCA	TGCAACCTGCTCCAAGGTAT
<i>Sirt6</i>	147	CGTTAATCGGTATGCCGT	GCAATTAGCGGATAACGG
<i>Dnmt3a</i>	142	TGCCAGACCTTGGAAACCTC	GCTGGCACCCCTCTTCTTCAT
<i>Aox1</i>	286	CATAGGCGGCCAGGAACATT	TCCTCGTTCCAGAATGCAGC
<i>Il-6</i>	112	ATCCAGTTGCCTTCTTGGGACTGA	TAAGCCTCCGACTTGTGAAGTGGT
<i>Il-10</i>	105	GGCGCTGTCATCGATTTCT	TGGCCTTGTAGACACCTTG
<i>Tnf-α</i>	157	TCGGGGTGATCGGTCCCCAA	TGGTTTGCTACGACGTGGGCT
<i>Gfap</i>	125	CCTTCTGACACGGATTTGGT	ACATCGAGATCGCCACCTAC
<i>Aβ-precursor</i>	99	TCGGGGTGATCGGTCCCCAA	GTCACGTTACCCTCCCCAG
<i>β-actin</i>	218	CTGTCCCTGTATGCCTCTG	ATGTCACGCACGATTTC

miRCURY LNA miRNA Validation probes

Target	Reference
<i>hsa-miR-29c-3p</i>	YP00204729
<i>hsa-miR-431-5p</i>	YP00204737
<i>mmu-miR-298-5p</i>	YP00205092
<i>mmu-miR-98-5p</i>	YP00204640
<i>hsa-miR-140-5p</i>	YP00204540
<i>hsa-miR-181a-5p</i>	YP00206081
<i>hsa-miR-106b-5p</i>	YP00205884
<i>SNORD68</i>	YP00203911

Supplementary Table 3. MicroRNAs differentially expressed in the hippocampus of SAMP8 compared to SAMR1. In bold significant changes in microRNAs gene expression. Chronic mild stress (CMS).

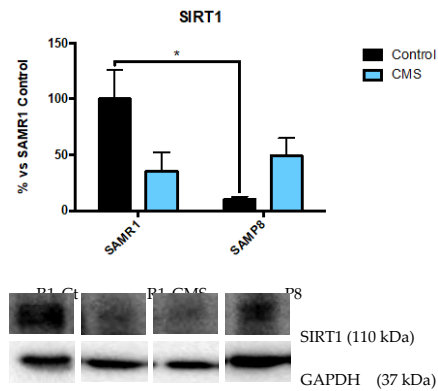
miRNAs	t-test R1vsP8 (Control)	t-test R1vsP8 (CMS)	SAMP8 mean (Control)	SAMP8 mean (CMS)
mmu-let-7c-5p	0,5206	0,8132	0,685515425	1,371331756
mmu-let-7e-5p	0,0811	0,5587	2,40490477	1,632769635
mmu-miR-106b-5p	0,9999	0,2660	1,132383859	1,232476548
mmu-miR-107-3p	0,8380	0,4660	1,328378691	3,799918898
mmu-miR-128-3p	0,4700	0,8359	1,019540454	0,770764343
mmu-miR-140-5p	0,0888	0,7931	0,427932135	0,638528798
mmu-miR-146a-5p	0,3321	0,9831	0,661767151	1,05660245
mmu-miR-148b-3p	0,5777	0,7738	0,850640236	1,358667617
mmu-miR-181a-5p	0,3322	0,5831	0,648670009	0,807795594
mmu-miR-191-5p	0,4023	0,7820	1,49960659	2,283907188
mmu-miR-26b-5p	0,9616	0,7750	1,256561233	2,40301896
mmu-miR-27a-3p	0,9834	0,4614	1,094208773	1,473142951
mmu-miR-29a-3p	0,6635	0,9001	0,781562275	0,780564672
mmu-miR-29c-3p	0,7673	0,2989	0,872848654	1,075036978
mmu-miR-431-5p	0,2351	0,3631	0,647237869	0,8543147
mmu-miR-484	0,4205	0,5736	0,697625273	0,85411048
mmu-miR-7a-5p	0,9262	0,1577	0,970688911	0,817409622
mmu-miR-9-5p	0,6745	0,7763	0,86533627	1,103131318
mmu-miR-98-5p	0,6566	0,0789	0,797413303	1,203181993
mmu-miR-101b-3p	0,7844	0,8586	0,973139682	1,197227365
mmu-miR-151-3p	0,3281	0,0705	0,670170619	1,655517937
mmu-miR-298-5p	0,5110	0,8686	0,506346238	1,199505517

Supplementary Table 4. MicroRNAs differentially expressed in the hippocampus of SAMP8 and SAMR1 under the influence of Chronic Mild Stress (CMS) compared to Control. In bold significant changes in microRNAs gene expression.

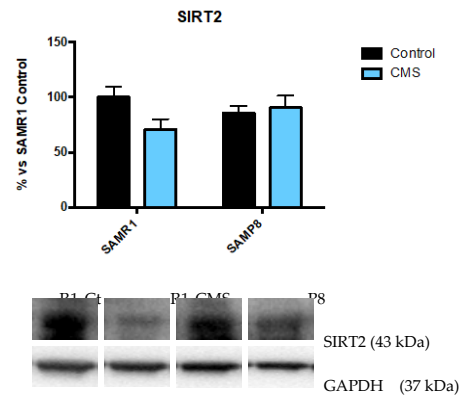
miRNAs	t-test CMSvsCt (SAMR1)	t-test CMSvsCt (SAMP8)	CMS mean (SAMR1)	CMS mean (SAMP8)
mmu-let-7c-5p	0,6702	0,4110	1,217779659	1,371331756
mmu-let-7e-5p	0,3220	0,2598	2,329973466	1,632769635
mmu-miR-106b-5p	0,4796	0,8131	0,674459492	1,232476548
mmu-miR-107-3p	0,1868	0,1199	2,889824565	3,799918898
mmu-miR-128-3p	0,2969	0,4166	0,721771206	0,770764343
mmu-miR-140-5p	0,0284	0,6703	0,520726166	0,638528798
mmu-miR-146a-5p	0,9188	0,5186	0,661767151	1,05660245
mmu-miR-148b-3p	0,9315	0,6381	1,007171102	1,358667617
mmu-miR-181a-5p	0,8769	0,6623	1,136036714	0,807795594
mmu-miR-191-5p	0,2235	0,5449	1,930735094	2,283907188
mmu-miR-26b-5p	0,4720	0,4802	1,945274377	2,40301896
mmu-miR-27a-3p	0,7589	0,4660	1,276677933	1,473142951
mmu-miR-29a-3p	0,5346	0,9984	0,731789022	0,780564672
mmu-miR-29c-3p	0,6103	0,6891	0,821643978	1,075036978
mmu-miR-431-5p	0,2273	0,3696	0,670621426	0,8543147
mmu-miR-484	0,4220	0,5712	0,705959538	0,85411048
mmu-miR-7a-5p	0,2673	0,1856	1,221853394	0,817409622
mmu-miR-9-5p	0,8555	0,4140	1,15465838	1,103131318
mmu-miR-98-5p	0,5442	0,3852	0,787400729	1,203181993
mmu-miR-101b-3p	0,8696	0,6396	1,281426619	1,197227365
mmu-miR-151-3p	0,6778	0,4055	1,172720512	1,655517937
mmu-miR-298-5p	0,9961	0,2580	1,085941122	1,199505517

Supplementary Figure 1. Representative Western Blot for SIRT1 (A) and SIRT2 (B) protein levels and quantification. Relative gene expression of *Sirt2* (C). Gene expression levels were determined by real-time PCR. Values in bar graphs are adjusted to 100% for protein levels of SAMR1 Control (R1 Ct). Values are mean $\pm$ Standard error of the mean (SEM); (n = 4 for each group). *p<0.05.

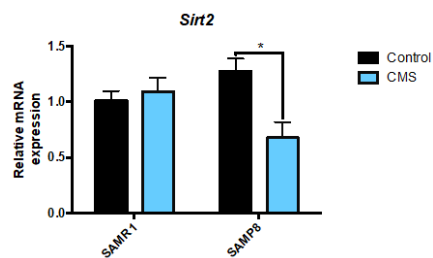
A



B



C



Supplementary Figure 2. Representative changes

