

Table S1. Primers and probes used for RT-PCR

Gene symbol RefSeq accession number	Encoded protein and its function	Primer 5'-3' (forward, reverse, probe)	Amplicon length and position on mRNA	Reference
<i>Gapdh</i> ¹ NM_017008	Glyceraldehyde-3-phosphate dehydrogenase Glycolytic enzyme	TGCACCACCAACTGCTTAG GGATGCAGGGATGATGTTC ATCACGCCACAGCTTCCAGAGGG*	177 bp (523-699)	1
<i>Actb</i> ¹ NM_031144	Beta-actin Cytoskeletal protein	TGTCACCAACTGGGACGATA GGGGTGTGAAGGTCTCAAA CGTGTGGCCCTGAGGAGCAC#	165 bp (303-467)	2 (forward and reverse primers); 3 (hydrolysis probe)
<i>B2m</i> ¹ NM_012512	Beta-2-microglobulin Assembly and surface expression of MHC class I molecules	TGCCATTAGAAAACTCCCC GAGGAAGTTGGGCTTCCCATT ATTCAAGTGTACTCTCGCCATCCACCG&	73 bp (77-149)	4
<i>Sdha</i> ² NM_130428	Succinate dehydrogenase complex, subunit a, flavoprotein Component of electron transport chain	AGACGTTTGACAGGGGAATG TCATCAATCCGCACCTTGTA ACCTGGTGGAGACGCTGGAGCT*	160 bp (1666-1825)	5 (forward and reverse primers); 3 (hydrolysis probe)
<i>Rpl13a</i> ² NM_173340	Ribosomal protein L13A 60S ribosomal subunit protein	GGATCCCTCCACCCTATGACA CTGGTACTTCCACCCGACCTC CTGCCCTCAAGGTTGTGCGGCT#	131 bp (334-464)	6 (forward and reverse primers); 3 (hydrolysis probe)
<i>Ppia</i> ² NM_017101	Peptidyl prolyl isomerase A, cyclophilin A Protein folding	AGGATTCATGTGCCAGGGTG CTCAGTCTTGGCAGTGCAGA CACGCCATAATGCACTGGTGGCA&	187 bp (216-402)	7
<i>Pgk1</i> ³ NM_053291	Phosphoglycerate kinase 1 Glycolytic enzyme	ATGCAAAGACTGGCCAAGCTAC AGCCACAGCCTCAGCATATTTT TGCTGGCTGGATGGGCTTGGGA*	104 bp (888-991)	8 (forward and reverse primers); 3 (hydrolysis probe)
<i>Hprt</i> ³ NM_012583	Hypoxanthine phosphoribosyl transferase 1 Purine synthesis	TCCTCAGACCGCTTTTCCCGC TCATCATCTAATCAGACGCTGG CCGACCGTTCTGTCTATGTCGACCCT#	80 bp (28-107)	9 (forward and reverse primers); 3 (hydrolysis probe)
<i>Ywhaz</i> ³ NM_013011	Tyrosine 3- monoxygenase/tryptophan 5-monoxygenase activation protein, zeta polypeptide Cell signaling	GATGAAGCCATTGTGTAAGTGG GTCTCCTTGGGTATCCGATGTC TGAAGAGTCGTACAAAAGACAGCACGC&	117 bp (650-766)	8 (forward and reverse primers); 3 (hydrolysis probe)

* – Labeled with R6G fluorescent dye (5') and BHQ1 quencher (3');

– Labeled with FAM fluorescent dye (5') and BHQ1 quencher (3');

& – Labeled with ROX fluorescent dye (5') and BHQ2 quencher (3').

^{1, 2, 3} – assays with the same index were run in a single multiplex reaction.

References

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Medial prefrontal cortex

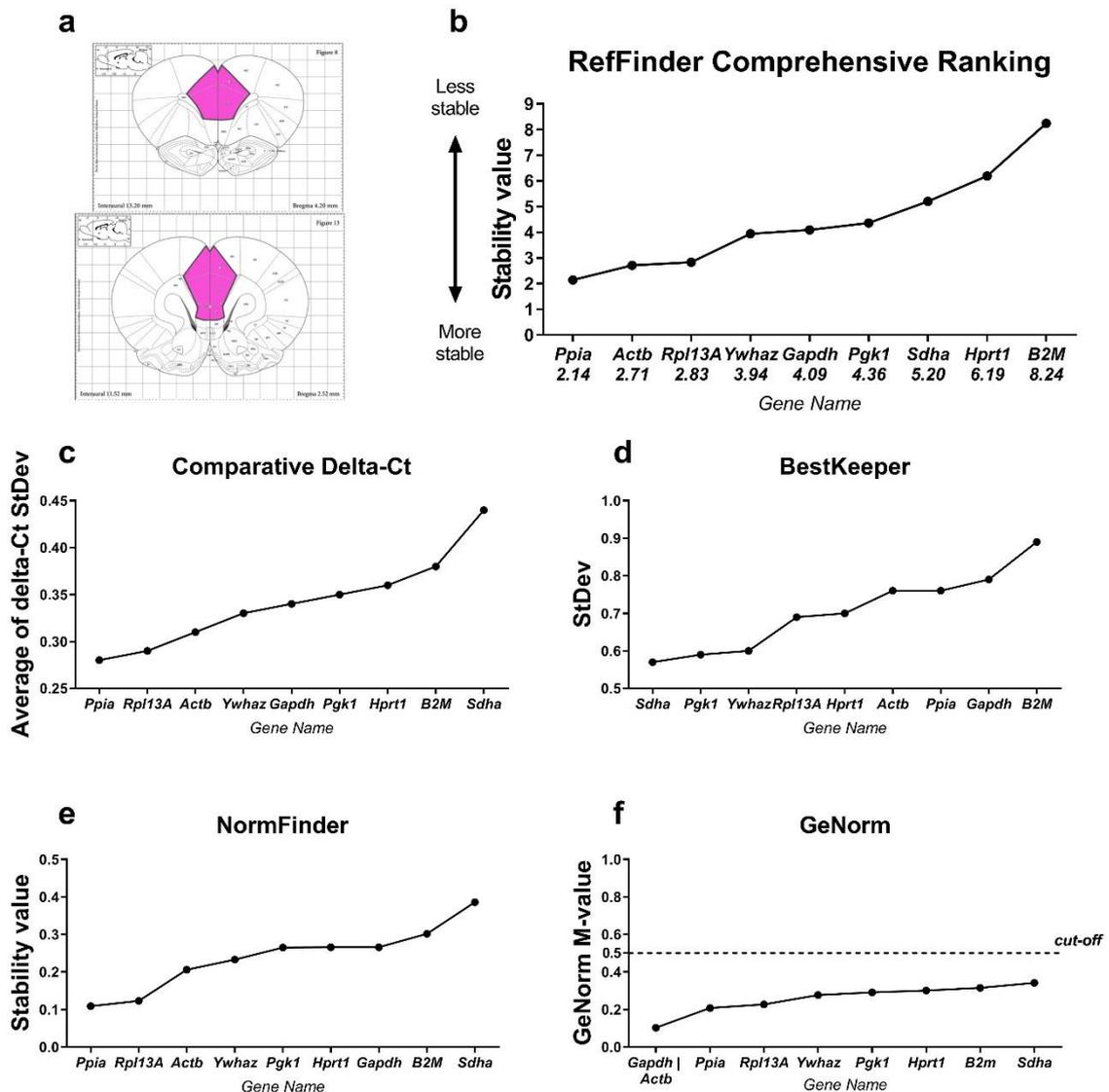


Fig. S1. Stability values obtained by RefFinder online tool in the medial prefrontal cortex (mPFC) of rats fed with medium chain triglycerides (MCT). MCT oil (2 ml/kg body weight) was given as a supplement to standard feed to adult (9 m.o., BW = 444 ± 69 g) animals by oral gavage daily for 4 weeks, while control rats received equivolume water. **(a)** Coronal rat brain atlas diagrams (reproduced from Paxinos and Watson, 2007) showing mPFC (pink) boundaries at Bregma 4.20 mm and 2.52 mm, corresponding to the approximate rostral and caudal limits of mPFC collected for RT-PCR analysis. **(b)** RefFinder comprehensive ranking (ranks are indicated under gene names on X-axis) is based on the geometric mean of ranks obtained by four methods: **(c)** comparative Delta-Ct, **(d)** BestKeeper, **(e)** NormFinder, and **(f)** GeNorm.

Dorsal hippocampus

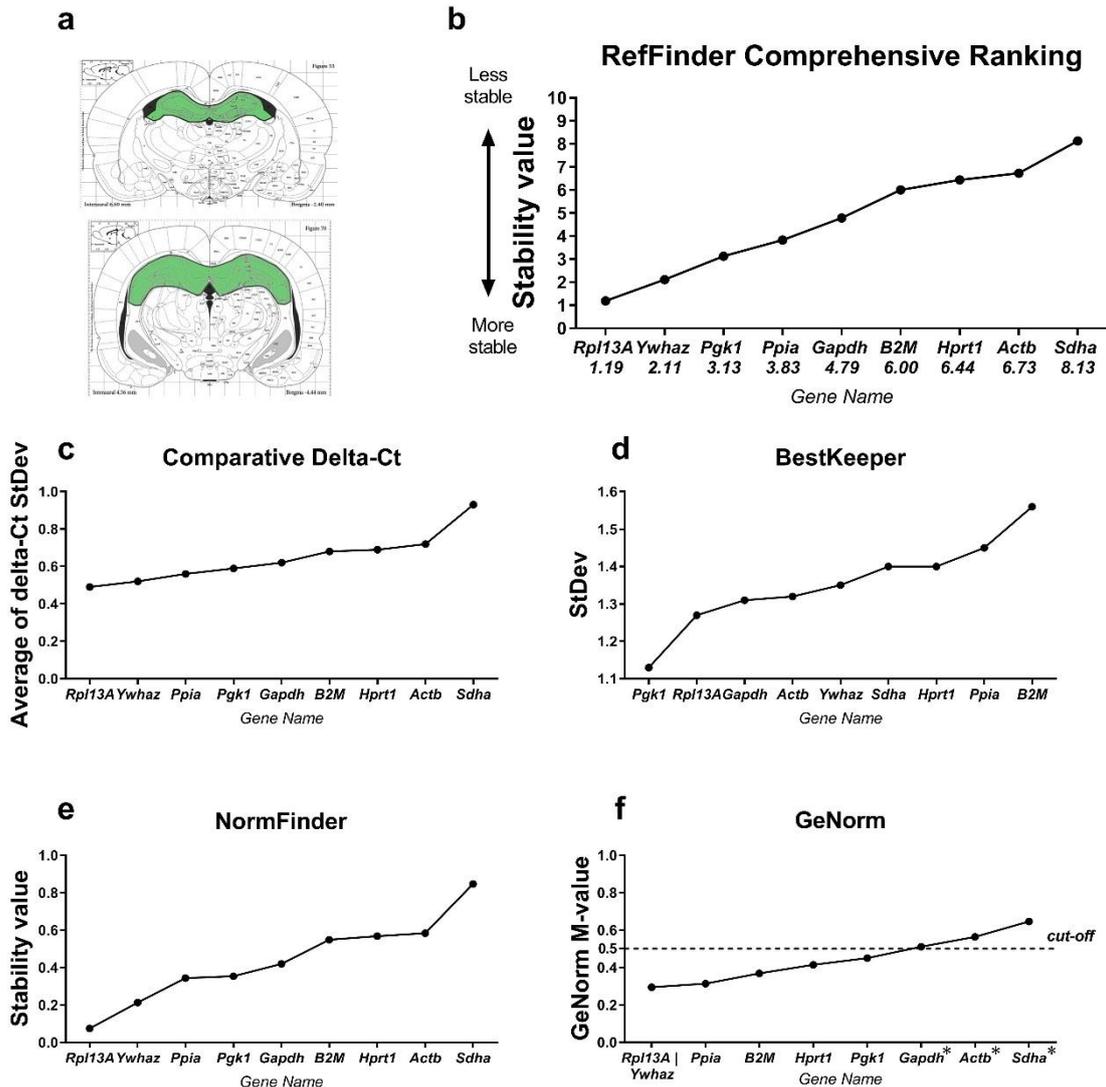


Fig. S2. Stability values obtained by RefFinder online tool in the dorsal hippocampus (DH) of rats fed with medium chain triglycerides (MCT). MCT oil (2 ml/kg body weight) was given as a supplement to standard feed to adult (9 m.o., BW = 444 ± 69 g) animals by oral gavage daily for 4 weeks, while control rats received equivolume water. **(a)** Coronal rat brain atlas diagrams (reproduced from Paxinos and Watson, 2007) showing DH (green) boundaries at Bregma -2.40 mm and -4.44 mm, corresponding to the approximate rostral and caudal limits of DH collected for RT-PCR analysis. **(b)** RefFinder comprehensive ranking (ranks are indicated under gene names on X-axis) is based on the geometric mean of ranks obtained by four methods: **(c)** comparative Delta-Ct, **(d)** BestKeeper, **(e)** NormFinder, and **(f)** GeNorm. Dashed line indicates GeNorm cut-off 0.5 M-Value: values above this line correspond to unstably expressed genes, which are invalid for RT-qPCR normalization. * – unstably expressed genes inappropriate for normalization according to the GeNorm cut-off 0.5 M-Value.

Ventral hippocampus

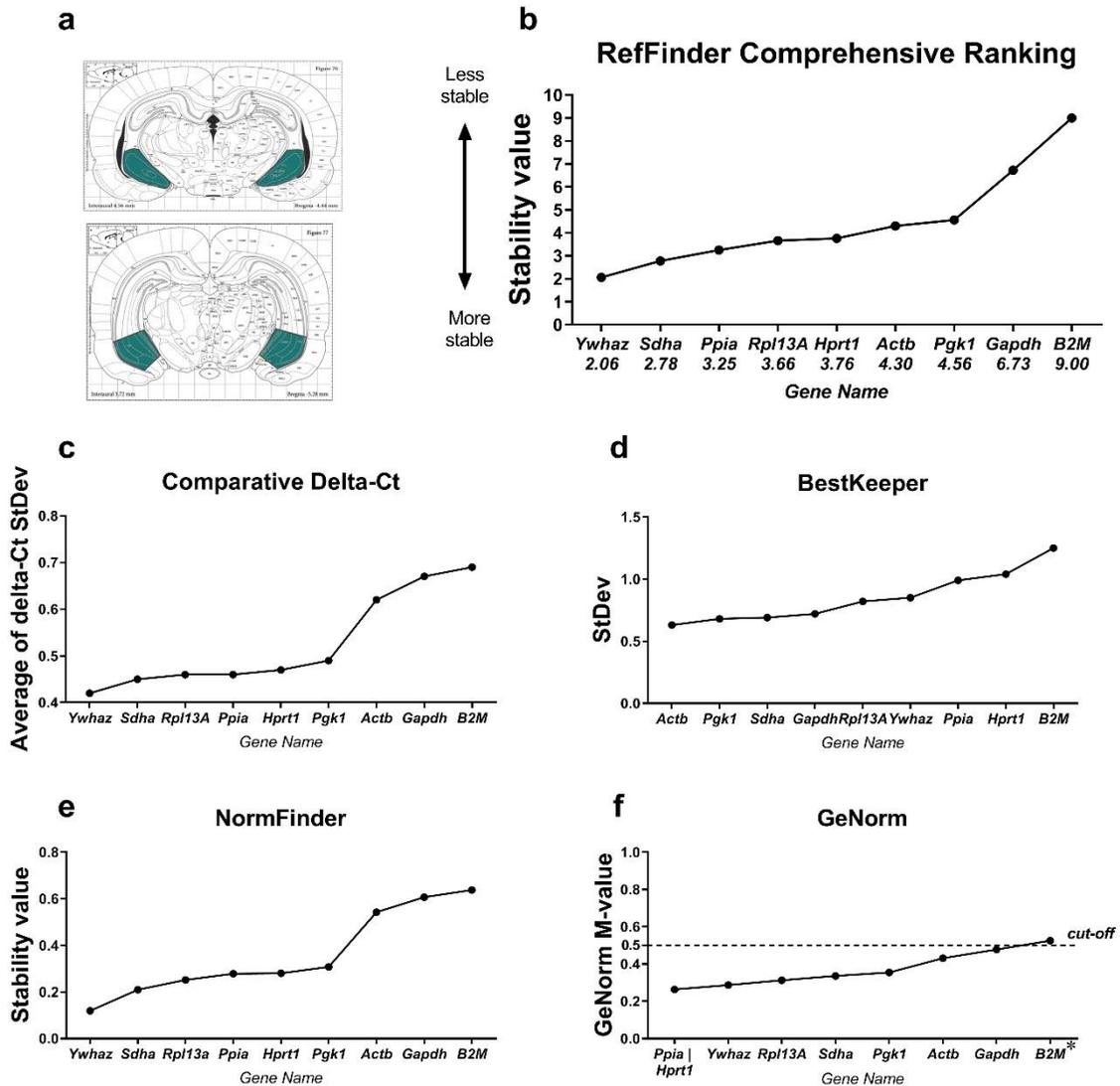


Fig. S3. Stability values obtained by RefFinder online tool in the ventral hippocampus (VH) of rats fed with medium chain triglycerides (MCT). MCT oil (2 ml/kg body weight) was given as a supplement to standard feed to adult (9 m.o., BW = 444 ± 69 g) animals by oral gavage daily for 4 weeks, while control rats received equivolume water. **(a)** Coronal rat brain atlas diagrams (reproduced from Paxinos and Watson, 2007) showing VH (blue) boundaries at Bregma -4.44 mm and -5.28 mm, corresponding to the approximate rostral and caudal limits of VH collected for RT-PCR analysis. **(b)** RefFinder comprehensive ranking (ranks are indicated under gene names on X-axis) is based on the geometric mean of ranks obtained by four methods: **(c)** comparative Delta-Ct, **(d)** BestKeeper, **(e)** NormFinder, and **(f)** GeNorm. Dashed line indicates GeNorm cut-off 0.5 M-Value: values above this line correspond to unstably expressed genes, which are invalid for RT-qPCR normalization. * – unstably expressed genes inappropriate for normalization according to the GeNorm cut-off 0.5 M-Value.