

Fig. S1. Immunostaining of hippocampal cell culture transduced with (AAV)-Syn-BDNF-EGFP-construct. (A) Nuclei stained with Hoechst33342. (B) Fluorescence of antibodies against neuronal marker NeuN. (C) EGFP fluorescence in cells with BDNF overexpression. (D) Merge of Hoechst33342, NeuN and AAV-EGFP (BDNF) staining. From 9 cells in the view field, 4 cells are neurons. EGFP fluorescence was detected in all neurons.

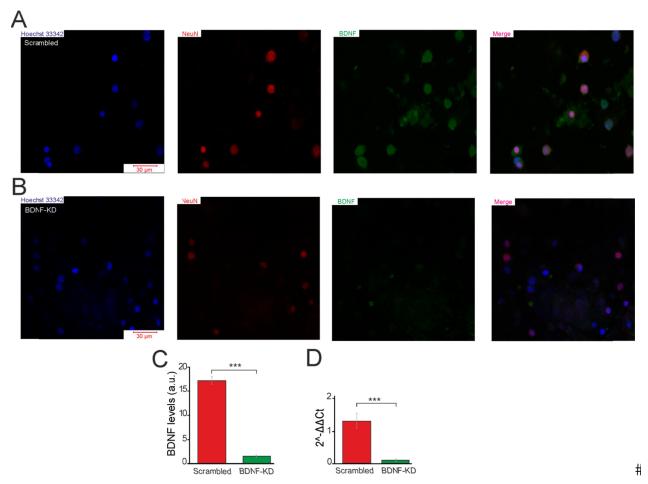


Fig. S2. The efficiency of BDNF knockdown. (A, B) Immunostaining of Scrambled cultures (A) and BDNF-knockdown cultures (BDNF-KD) (B) with antibodies against NeuN (red color) and BDNF (green color). Nuclei were stained with Hoechst 33342 (HO343) (blue color). (C, D) Effect of BDNF knockdown on the protein level (C) and mRNA expression of BDNF (D). The level of intracellular-expressed BDNF was determined by confocal imaging. We analyzed individual neurons with the fluorescence of Alexa Fluor 488 (BDNF, green color). The scrambled group (cell cultures transfected with shRNA) was used as control. The quantitative data reflecting the level of BDNF expression are presented as fluorescence intensity values in summary bar charts (mean \pm SE). Statistical significance was assessed using paired *t*-test. We used the scans from three independent view fields for each experimental group. Values of each column were the average of 150 cells. The changes of expression were detected with RT-PCR assay. The expression in non-transfected cultures (control) was considered as 1. The cultures which were used in these experiments were not preconditioned with episodes of hypoxia. *** $P \leq 0.001. \#$

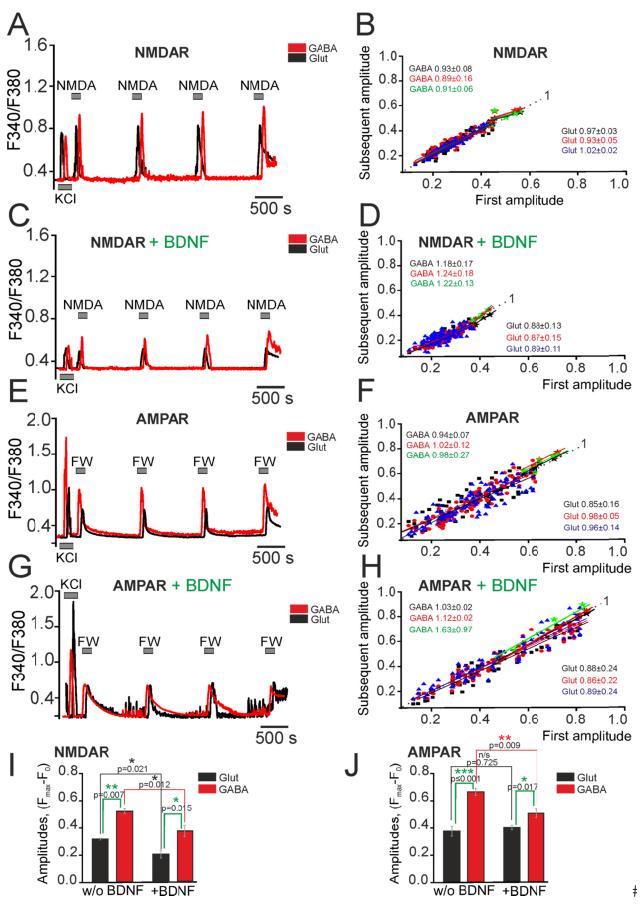


Fig. S3. Effects of BDNF overexpression on Ca²⁺ responses of glutamatergic (Glut, black curves) and GABAergic (GABA, red curves) neurons to repetitive applications of agonists

of AMPA and NMDA receptors in control cultures (without hypoxia). (A, C) Averaged Ca²⁺ responses of GABAergic (red curve) and glutamatergic (black curve) neurons non-transduced (A) and transduced with (AAV)-Syn-BDNF-EGFP construct (C), to repeated NMDA applications (10 µmol/L in Mg²⁺-free medium). (B, D) The ratio of the amplitudes of Ca²⁺ responses of neurons to the second, third, and fourth NMDA application to the amplitudes of the response to the first NMDA application. X-axis, amplitudes of the responses to the first NMDA application; Y-axis, the amplitudes to the further NMDA applications. (E, G) Averaged Ca²⁺ responses of GABAergic (red curve) and glutamatergic (black curve) neurons non-transduced (E) and transduced with (AAV)-Syn-BDNF-EGFP construct (G), to repeated FW applications (0.3 µmol/L). (F, H) The ratio of the amplitudes of Ca²⁺ responses of neurons to the second, third, and fourth FW application to the amplitudes of the response to the first FW application. Xaxis, amplitudes of the responses to the first FW application; Y-axis, the amplitudes to the further FW applications. (I, J) Averaged amplitudes of Ca²⁺ responses of glutamatergic (black columns) and GABAergic (red columns) neurons to NMDA (10 µmol/L in Mg²⁺-free medium) and FW application in non-transduced (w/o BDNF) and transduced (+BDNF) cell cultures. In B, D, F and H, the dashed black line (1) demonstrates linear approximation whose slope value is 1. Black squares, red circles and blue triangles correspond to amplitudes of the Ca²⁺ responses of individual glutamatergic neurons to the second, third and fourth applications of NMDA or FW. Amplitudes of GABAergic neurons are marked with black, red and green star-shaped markers for the second, third and fourth applications of the agonists respectively. The colored values in panels are the slopes of linear regressions approximating Ca²⁺ responses of GABAergic (GABA) and glutamatergic neurons (Glut) to the applications of NMDA or FW. The color of values corresponds to the color of approximating lines.#

Table S1. Primer sequences for real-time polymerase chain reaction (RT-PCR).

Name	Sequences
Grin2a	Forward 5'-gctgacaaggatccgacatccacg-3'
	Reverse 5'-gcccacaaagctgttgtccactgt-3'
Grin2b	Forward 5'-ggtgaggtggtcatgaagagggc-3'
	Reverse 5'-gggttctgcacaggtacggagttg-3'
Gria1	Forward 5'-tgtctacatttatgatgctgaccggggc-3'
	Reverse 5'-cgaggatgtagtggtacccgatgc-3'

Reverse 5'-5'-cctggtttggacttctgaggctctttg-3' Grik1 Forward 5'-ggaggatgaggegggacc Reverse 5'-geatgetetteggaggetteaaaac Grik2 Forward 5'-ggatgggaaatatggageccaggatgat Reverse 5'-teagggaggagaggatteaggaagag Gabra1 Forward 5'-teattttgggectggaeceteattetg-3' Reverse 5'-ceataaggttgtttageeggageactg-3' Gabbr1 Forward 5'-teettgggaagaagaagaacaggggag-3' Reverse 5'-gagteaageeaeggtaectgatge-3' Vglut1 Forward 5'-ggaggaggetgeaeeggtaectgatge-3' Vglut2 Forward 5'-egagagaecatgagaggaggaggaggaggaggaggaggaggagagaga	Gria2	Forward 5'-gagggctactgtgttgacttagctgc-3'
Reverse 5'-geatggetettegggaggetteaaaae Grik2 Forward 5'-ggatgggaaatatggagcccaggatgat Reverse 5'-teaggggagagaggaggaggaggaggaggaggaggaggagg		Reverse 5'-5'-cctggtttggacttctgaggcttcttg-3'
Grik2 Forward 5'-ggatgggagatggagaggaggaggaggaggaggaggagga	Grik1	Forward 5'-ggaggatgaggcggggacc
Reverse 5'-teaggggagagagagagatteaggaaggag Gabral Forward 5'-tacttttggcettggacceteattetg-3' Reverse 5'-ccataaggttttttagecggagacaetg-3' Gabbrl Forward 5'-teetgtggaagaagaagagagag-3' Reverse 5'-gagteaagecaeggtacetgatge-3' Vglut1 Forward 5'-tggggaggetgeaceggtace Reverse 5'-gaggeaggetgacaeggtacetgatgagagagagagagagagagagagagagagagagag		Reverse 5'-gcatgctcttcgggaggcttcaaaac
Gabral Forward 5'-tatetttgggeetggageacteg-3' Reverse 5'-ceataaggttgtttageeggageactg-3' Forward 5'-teetgtggaagaagaagagggag-3' Reverse 5'-gagteaageeaeggtacetgatee-3' Vglut1 Forward 5'-gaggageetgeaeggatgeaeggageaegeaggageaeggageaeggageaeggageaegeaggageaegeaggageaegeaggageaegeaggageaegeaggageaegeaggageaegeaggageaggagagagagagagagagagagagagagagagagagaga	Grik2	Forward 5'-ggatgggaaatatggagcccaggatgat
Reverse 5'-ccataaggttgtttagccggagacactg-3' Gabbr1 Forward 5'-tcctgtggaagaagaagaaggggag-3' Reverse 5'-gagtcaagcacggtacctgatgc-3' Vglut1 Forward 5'-ggggagggtgacctgatgacgaag Reverse 5'-ggagacatgtatgaggccgacagt Vglut2 Forward 5'-ccgaaggacgatgacgagaggagagagagagagagagaga		Reverse 5'-tcaggggagagaggattcaggaaggag
Gabbr1 Forward 5'-tectgtggaagaagaagaagagagag-3' Reverse 5'-gagtcaagcacggtacctgatge-3' Vglut1 Forward 5'-ggggaggetgcaccggttac Reverse 5'-gaggcatgtatgaggecgacagt Vglut2 Forward 5'-cgaggaagccatcgagtgaagag Reverse 45'-gcagccatgtaggagtggatgat Pik3ca Forward 5'-ctgagatgggagtgggatgcg-3' Reverse 5'-tagtttagtgctatcaaaccctgcttgcgtg-3' Pik3cb Forward 5'-gaggttatgagtgtgcttccgcctat-3' Reverse 5'-agtettegtgtttcgtcttccagttcctc-3' Pik3cg Forward 5'-getgeggagttctaccaccgattg-3' Reverse 5'-tcagggaggtgagctggtttcaccaccgattg-3' Reverse 5'-tcagggaggtgagctgcttctgg-3' Mtore1 Forward 5'-gcaggtggatgccacagtgttca Reverse 5'-cgagagttcgaagggcaagagtgatge Mtore2 Forward 5'-gaagattggaagggcaagagtgatge Frs2 Forward 5'-gtgggaagcccgaagctca Reverse 5'-gcagaactcccaggcattetgget Frs2 Forward 5'-tgaagagctgtggatgagacc Reverse 5'-gcaccettccaagtccacctg pro-Bdnf Forward 5'-tcgaagagctgtggatgagagacc Reverse 5'-agtcctgtaggagagagcc Ntrk1 Forward 5'-tcaccctcggctaatactgtcacacacg Ntrk2 Forward 5'-gcactgtcaggagagggccc Ntrk2 Forward 5'-gcactgtcaggagagggccc Porward 5'-gcactgtcaggagaggccc Ntrk2 Forward 5'-gcactgtcaggagagggccc Porward 5'-gcactgtcaggagaggccc Ntrk2 Forward 5'-gcactgtcaggagaggccc Porward 5'-gcactgtcaggagaggccc Porward 5'-gcactgtcaggagaggccc Ntrk2 Forward 5'-gcactgtcaggagaggccc	Gabra1	Forward 5'-tatctttgggcctggaccctcattctg-3'
Reverse 5'-gagtcaagccacggttactgatgc-3' Vglut1 Forward 5'-ggggaggtgcaccggttac Reverse 5'-ggagccatgtatgaggccgacagt Vglut2 Forward 5'-ccgagagaccatcgagctgacagag Reverse 45'-gcagccagtegcgatgcgatgtat Pik3ca Forward 5'-ctgagatgggagctgggactgc-3' Reverse 5'-tagttttagtgctatcaaaccetgcttgcgtg-3' Pik3cb Forward 5'-gaggttatgagttgtcttccgcctat-3' Reverse 5'-agtcttcgtgtttcgtcttccagttcctc-3' Pik3cg Forward 5'-getgcggagttctaccaccgattg-3' Reverse 5'-tcaggaggtgagctgcttctgg-3' Mtorc1 Forward 5'-gcaggtggatgccacagtgttca Reverse 5'-cgagagttcgaagggcaagagtgatgc Mtorc2 Forward 5'-gaggattggaagggcaagagtgatgc Mtorc2 Forward 5'-gtaggaggtggaaccggat Reverse 5'-gcagaactcccaggcattctggct Frs2 Forward 5'-tgaggaggccgcaagctca Reverse 5'-gcccettcaagtccacctg pro-Bdnf Forward 5'-tcgaagagctgtggatgagacc Reverse 5'-gacccactcgctaatactgtcacacacg Ntrk1 Forward 5'-tcaaccctcggcatgtca Reverse 5'-agtcctgtagggagaggccc Ntrk2 Forward 5'-gcagtagtgagagagccc Ntrk2 Forward 5'-gcagtagtgagagtgctctaccacacg Porward 5'-gcacttcctgctacccgagtttaccacacacg Ntrk2 Forward 5'-gcacttctgctacccgcagtttaccacacacg Porward 5'-gcactgaggagaggccccacacacacacacacacacacac		Reverse 5'-ccataaggttgtttagccggagcactg-3'
Vglut1 Forward 5'-ggggaggtgtaccggtaccggtaccggtaccggtaccggtaccgacggtaccggacggtaccggacggtaccggacgga	Gabbr1	Forward 5'-tcctgtggaagaagaagaggggggg-3'
Reverse 5'-gagagcatgtatgaggcagaagt Vglut2 Forward 5'-ccgagagacatcgagctgacagag Reverse 45'-gagaccagtcgagtgatgtat Pik3ca Forward 5'-ctgagatgggagtgggactgc-3' Reverse 5'-tagtttagtgctatcaaaccctgettgegtg-3' Pik3cb Forward 5'-gaggttatgagtgtgcttccgccctat-3' Reverse 5'-agtettcgtgtttcgtettccagttcct-3' Reverse 5'-agtettcgtgtttcgtettccagttctc-3' Pik3cg Forward 5'-getgggagtttaccaccgattg-3' Reverse 5'-tcagggaggtgagctgcttctgg-3' Mtorc1 Forward 5'-geaggtggatgcacagtgttca Reverse 5'-cgagagttggaaggcaagagtgatgc Mtorc2 Forward 5'-gatgatgggagggagacaggat Reverse 5'-gagaactcccaggcattctgget Frs2 Forward 5'-gtgggaagccgcaagactca Reverse 5'-gaccccttccaagtccacctg pro-Bdnf Forward 5'-tcgaagagctgtggatgagacc Reverse 5'-gacccactgctaatactgtcacacacg Ntrk1 Forward 5'-ttcaccceteggetcagtca Reverse 5'-agtcctgtaggggagggccc Ntrk2 Forward 5'-gcactgtctgtaccgcagttg Reverse 5'-agtcctgtaagggagggccc Porward 5'-gcactgtcctgctaccgcagttg Reverse 5'-agtcctgtaagggagggccc Ntrk2 Forward 5'-gcactgtctgtaccgcagttg Reverse 5'-agtcattcagagtgggtgtcctac		Reverse 5'-gagtcaagccacggtacctgatgc-3'
Vglut2 Forward 5'-ccgagagaccatcgagctgacagag Reverse 45'-gcagccagtcgcgatgcgatgtat Pik3ca Forward 5'-ctgagatgggagctggactgc-3' Reverse 5'-tagtttagtgctatcaaaccctgcttgcgtg-3' Pik3cb Forward 5'-gaggttatgagtgtgcttccgccctat-3' Reverse 5'-agtcttcgtgtttcgtcttccagttcc-3' Pik3cg Forward 5'-gctgcggagttctaccaccgattg-3' Reverse 5'-tcagggaggtgagctgcttctgg-3' Mtorc1 Forward 5'-gcaggtggatgcacacgtgttca Reverse 5'-cgagagttcgaaggcaagagtgatgc Mtorc2 Forward 5'-gaggatggagggagggagacggat Reverse 5'-gcagaactccaggattctggct Frs2 Forward 5'-gtaggaagccgcaagactca Reverse 5'-gccccttccaagtccacctg pro-Bdnf Forward 5'-tcgaagagctggatgagagcc Reverse 5'-gacccactcgctaatactgtcacacacg Ntrk1 Forward 5'-ttcacccctcggctagtaca Reverse 5'-agtcctgtagggagaggccc Ntrk2 Forward 5'-gcagtgatggaaggccc Ntrk2 Forward 5'-gcagtagtcggaaggccc Porward 5'-gcactgtctgtaccgcagttg Reverse 5'-agtcctgtaaggagagccc Ntrk2 Forward 5'-gcactgtctgtaccgcagttg Reverse 5'-agtcctgtaaggagagtgctctac	Vglut1	Forward 5'-ggggaggetgeaceggttae
Reverse 45'-gcagccagtcgcgatgcgatgtat Pik3ca Forward 5'-ctgagatgggagctgggactgc-3' Reverse 5'-tagtttagtgctatcaaaccctgcttgcgtg-3' Pik3cb Forward 5'-gaggttatgagtgtgttccgccctat-3' Reverse 5'-agtcttcgtgtttcgtcttccagttcct-3' Reverse 5'-tcagggagttctaccaccgattg-3' Reverse 5'-tcagggagttgagctgcttctgg-3' Mtorc1 Forward 5'-gcaggtggagctgcaccagtgttca Reverse 5'-cgagagttcgaagggcaagagtgatgc Mtorc2 Forward 5'-gatgatggggaggtggacacggat Reverse 5'-gcagaactcccaggcattctggct Frs2 Forward 5'-tcaggaagtcgaagccgcaagctca Reverse 5'-gccccttccaagtccacctg pro-Bdnf Forward 5'-tcgaagagctgctggatgagacc Reverse 5'-gacccactcggtataactgtcacacacg Ntrk1 Forward 5'-ttcacccctcggctcagtca Reverse 5'-agtccttgtagggagaggccc Ntrk2 Forward 5'-gcactgtcctgctaccgcagttg Reverse 5'-cagtcagtcagagtgctgtgatgaggacc Porward 5'-gcactgtctgtaccgcagttg Reverse 5'-cagtcagtcagagtgctgcaaagcct Forward 5'-gcactgtcctgctaccgcagttg Reverse 5'-cagtcagtcagagtgctgcaaagcct Porward 5'-gcactgtcagtcagagtgctgcaaagcct Ntrk2 Forward 5'-gcactgtcctgctaccgcagttg Reverse 5'-cagtcagtcagagtgctgcaaagcct		Reverse 5'-ggagccatgtatgaggccgacagt
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Pik3cb Forward 5'-gaggttatgagtgtgttccgccctat-3' Reverse 5'-agtcttcgtgttttccagttcctc-3' Pik3cg Forward 5'-gctgcggaggttcaccaccgattg-3' Reverse 5'-tcagggaggtgagctgcttctgg-3' Mtorc1 Forward 5'-gcaggtggatgccacagtgttca Reverse 5'-cgaggattcgaagggcaagagtgatgc Mtorc2 Forward 5'-gatgatggggaggaggagacacggat Reverse 5'-gcagaactcccaggcattctggct Frs2 Forward 5'-gtgggaagcccgcaagctca Reverse 5'-gccccttccaagtccacctg pro-Bdnf Forward 5'-tcgaagagctgctggatgagacc Reverse 5'-gacccactcgctaatactgtcacacacg Ntrk1 Forward 5'-ttcacccctcggctcagtca Reverse 5'-agtcctgtagggagaggccc Ntrk2 Forward 5'-gcactgtcctgctaccgcagttg Reverse 5'-cagtcagtcagagtgcgtgtcctac Forward 5'-gcaggagagtgctgctaccacccc Forward 5'-gcactgtcagaggaggccc Ntrk2 Forward 5'-gcactgtcagtcagagtgcgtgtccctac Forward 5'-gcggagagtgctgcaaagcct	Pik3ca	Forward 5'-ctgagatgggagctgggactgc-3'
Reverse 5'-agtettegtgtttegtettecagttecte-3' Pik3cg Forward 5'-getgeggagttetaceacegattg-3' Reverse 5'-teagggaggtgagetgettetgg-3' Mtore1 Forward 5'-geaggtggatgeacagtgttea Reverse 5'-cgagagttegaagggeaagagtgatge Mtore2 Forward 5'-gatgatggggaggtggacacggat Reverse 5'-gatgatggggaggtggacacggat Reverse 5'-geagaacteceaggeattetgget Frs2 Forward 5'-gtgggaagecegeaagetea Reverse 5'-geceettecaagtecacetg pro-Bdnf Forward 5'-tegaagagetgetggatgaggace Reverse 5'-gacceactegetaatactgteacacacg Ntrk1 Forward 5'-tteaceceteggeteagtea Reverse 5'-agteetgtagggagaggece Ntrk2 Forward 5'-geactgteetgetacegeagttg Reverse 5'-cagteagtetgetgetgetgetgetgetgetgetgetgetgetget		Reverse 5'-tagtttagtgctatcaaaccctgcttgcgtg-3'
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Reverse 5'-tcagggaggtgagctgcttctgg-3' Mtorc1 Forward 5'-gcaggtggatgccacagtgttca Reverse 5'-cgagagttcgaagggcaagagtgatgc Mtorc2 Forward 5'-gatgatggggaggtggacacggat Reverse 5'-gcagaactcccaggcattctggct Frs2 Forward 5'-gtgggaagccgcaagctca Reverse 5'-gccccttccaagtccacctg pro-Bdnf Forward 5'-tcgaagagctggatgaggacc Reverse 5'-gacccactcgctaatactgtcacacacg Ntrk1 Forward 5'-ttcacccctcggctcagtca Reverse 5'-agtcctgtaggagaggccc Ntrk2 Forward 5'-gcactgtctgctaccgcagttg Reverse 5'-cagtcagtcagagtgctgtcctac Forward 5'-gcactgtctgctaccgcagttg Forward 5'-gcactgtcagagtgctgtccctac Forward 5'-gcggagagtgctgcaaagcct		Reverse 5'-agtcttcgtgtttcgtcttccagttcctc-3'
Mtorc1 Forward 5'-gcaggtggatgccacagtgttca Reverse 5'-cgagagttcgaagggcaagagtgatgc Mtorc2 Forward 5'-gatgatggggaggtggacacggat Reverse 5'-gcagaactcccaggcattctggct Frs2 Forward 5'-gtgggaagcccgcaagetca Reverse 5'-gccccettccaagtccactg pro-Bdnf Forward 5'-tcgaagagctgetggatgaggacc Reverse 5'-gacccactcgctaatactgtcacacacg Ntrk1 Forward 5'-ttcacccetcggetcagtca Reverse 5'-agtcctgtagggagaggccc Ntrk2 Forward 5'-gcactgtcetgctaccgcagttg Reverse 5'-cagtcagtcagctgtgtccctac pro-Bdnf Forward 5'-gcactgtcetgctaccgcagttg Forward 5'-gcactgtcetgctaccgcagttg Forward 5'-gcactgtcagagtgcgtgtccctac Forward 5'-gcggagagtgctgcaaagcct	Pik3cg	Forward 5'-getgeggagttetaceaeegattg-3'
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Mtorc2 Forward 5'-gatgatggggaggtggacacggat Reverse 5'-gcagaactcccaggcattctggct Frs2 Forward 5'-gtggggaagcccgcaagctca Reverse 5'-gccccttccaagtccacctg pro-Bdnf Forward 5'-tcgaagagctgctggatgaggacc Reverse 5'-gacccactcgctaatactgtcacacacg Ntrk1 Forward 5'-ttcacccctcggctcagtca Reverse 5'-agtcctgtagggagaggccc Ntrk2 Forward 5'-gcactgtcetgctaccgcagttg Reverse 5'-cagtcagtcagagtgcgtgtccctac p75 Forward 5'-gcggagagtgctgcaaagcct	Mtore1	Forward 5'-gcaggtggatgccacagtgttca
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Frs2 Forward 5'-gtgggaagccgcaagctca Reverse 5'-gccccttccaagtccacctg pro-Bdnf Forward 5'-tcgaagagctgctggatgaggacc Reverse 5'-gacccactcgctaatactgtcacacacg Ntrk1 Forward 5'-ttcacccctcggetcagtca Reverse 5'-agtcctgtagggagaggccc Ntrk2 Forward 5'-gcactgtcctgctaccgcagttg Reverse 5'-cagtcagtcagagtgcgtgccctac pro-Bdnf Forward 5'-gacccactcgctagagaggaccc Reverse 5'-agtcctgtagggagaggccc Forward 5'-gcactgtcctgctaccgcagttg Reverse 5'-cagtcagtcagagtgcgtgccctac pro-Bdnf Forward 5'-gcactgtcagagtgcgcaaagccc Forward 5'-gcactgtcctgctaccgcagttg Reverse 5'-cagtcagtcagagtgcgtgccaaagcct	Mtorc2	Forward 5'-gatgatggggaggtggacacggat
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pro-Bdnf Forward 5'-tcgaagagctgctggatgaggacc Reverse 5'-gacccactcgctaatactgtcacacacg Ntrk1 Forward 5'-ttcacccctcggctcagtca Reverse 5'-agtcctgtagggagaggccc Ntrk2 Forward 5'-gcactgtcctgctaccgcagttg Reverse 5'-cagtcagtcagagtgctgcctacc p75 Forward 5'-gcggagagtgctgcaaagcct	Frs2	Forward 5'-gtgggaagcccgcaagctca
Reverse 5'-gacccactcgctaatactgtcacacacg Ntrk1 Forward 5'-ttcacccctcggctcagtca Reverse 5'-agtcctgtagggagaggccc Ntrk2 Forward 5'-gcactgtcctgctaccgcagttg Reverse 5'-cagtcagtcagagtgcgtgtccctac p75 Forward 5'-gcggagagtgctgcaaagcct		Reverse 5'-gccccttccaagtccacctg
Ntrk1 Forward 5'-ttcaccccteggeteagtea Reverse 5'-agtcctgtagggagaggece Ntrk2 Forward 5'-geactgteetgetacegeagttg Reverse 5'-cagtcagtcagagtgetgteetace p75 Forward 5'-geggagagtgetgeaaageet	pro-Bdnf	Forward 5'-tcgaagagctgctggatgaggacc
Reverse 5'-agtcctgtagggagaggccc Ntrk2 Forward 5'-gcactgtcctgctaccgcagttg Reverse 5'-cagtcagtcagagtgcgtgtccctac p75 Forward 5'-gcggagagtgctgcaaagcct		Reverse 5'-gacccactcgctaatactgtcacacacg
Ntrk2 Forward 5'-gcactgtcctgctaccgcagttg Reverse 5'-cagtcagtcagagtgcgtgtccctac p75 Forward 5'-gcggagagtgctgcaaagcct	Ntrk1	Forward 5'-ttcacccctcggctcagtca
Reverse 5'-cagtcagtcagagtgcgtgtccctac p75 Forward 5'-gcggagagtgctgcaaagcct		Reverse 5'-agtcctgtagggagggccc
p75 Forward 5'-gcggagagtgctgcaaagcct	Ntrk2	Forward 5'-gcactgtcctgctaccgcagttg
		Reverse 5'-cagtcagtcagagtgcgtgtccctac
Reverse 5'-tcgtctgagtatgtgccctctggg	p75	Forward 5'-gcggagagtgctgcaaagcct
		Reverse 5'-tcgtctgagtatgtgccctctggg

Il1b	Forward 5'-gaagcagctatggcaactgtccctga-3'
	Reverse 5'-caggtcgtcatcatcccacgagtcac-3'
Tnfa	Forward 5'-ccgagatgtggaactggcagaggag-3'
	Reverse 5'-ttggccaggagggcgttgg-3'
II10	Forward 5'-tgggactgatgttgttgacagccact-3'
	Reverse 5'-ccaggtagaaacggaactccagaagac-3'
Stat3	Forward 5'-cagetggacaegegetaeetg-3'
	Reverse 5'-ctgcttctccgtcactacggcag-3'
Socs3	Forward 5'-cgtgcgccatggtcaccca-3'
	Reverse 5'-gctgccccctcgcact-3'
Bcl-2	Forward 5'-tggagatgaagactccgcgcccctga-3'
	Reverse 5'-cgtggcaaagcgtccctcgcggt-3'
Bel-xl	Forward 5'-gagcagacccagtgagtgagcaggt-3'
	Reverse 5'-ggggctatccgccaggtgc-3'
Casp3	Forward 5'-tcagaggcgactactgccggag-3'
	Reverse 5'-cgtgagcatggacacaatacacgggt-3'
116	Forward 5'-tgggactgatgttgttgacagccactg-3'
	Reverse 5'-ccaggtagaaacggaactccagaagacc-3'
Fas	Forward 5'-gtttggagttgaagaggagcgttcgt-3'
	Reverse 5'-cattggcacactttcaggacttggg-3'

Note: Grin2a, glutamate ionotropic receptor NMDA type subunit 2A; Grin2b, glutamate ionotropic receptor NMDA type subunit 2B; Gria1, glutamate ionotropic receptor AMPA type subunit 1; Gria2, glutamate ionotropic receptor AMPA type subunit 2; Grik1, glutamate ionotropic receptor kainate type subunit 1; Grik2, glutamate ionotropic receptor kainate type subunit 2; Gabra1, gamma-aminobutyric acid type A receptor alpha1 subuni; Gabbr1, gamma-aminobutyric acid (GABA) B receptor, 1; Vglut1, vesicular glutamate transporter 1; Vglut2, vesicular glutamate transporter 2; Pik3ca, phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit beta; Pik3cg, phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit gamma; Mtorc1, mammalian target of rapamycin complex 1; Mtorc2, mammalian target of rapamycin complex 2; Frs2, fibroblast Growth Factor Receptor Substrate 2; pro-BDNF, precursor of Brain-derived neurotrophic factor; Ntrk1 (TrkA-receptor), tropomyosin receptor kinase A; Ntrk2 (TrkB-receptor), tropomyosin receptor kinase B; II1b, interleukin 1 beta; II10, interleukin 10; Tnfa, tumor necrosis factor a; Stat3, signal transducer and activator of transcription 3; Socs3,

suppressor of cytokine signaling; Bcl-2, b-cell lymphoma 2; Bcl-xl, b-cell lymphoma-extra large; Casp3, caspase-3; Il6, interleukin 6; Fas, tumor necrosis factor receptor superfamily, member 6.