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Supplemental information

**AAV-BDNF gene therapy ameliorates a hypothalamic
neuroinflammatory signature in the *Magel2*-null
model of Prader-Willi syndrome**

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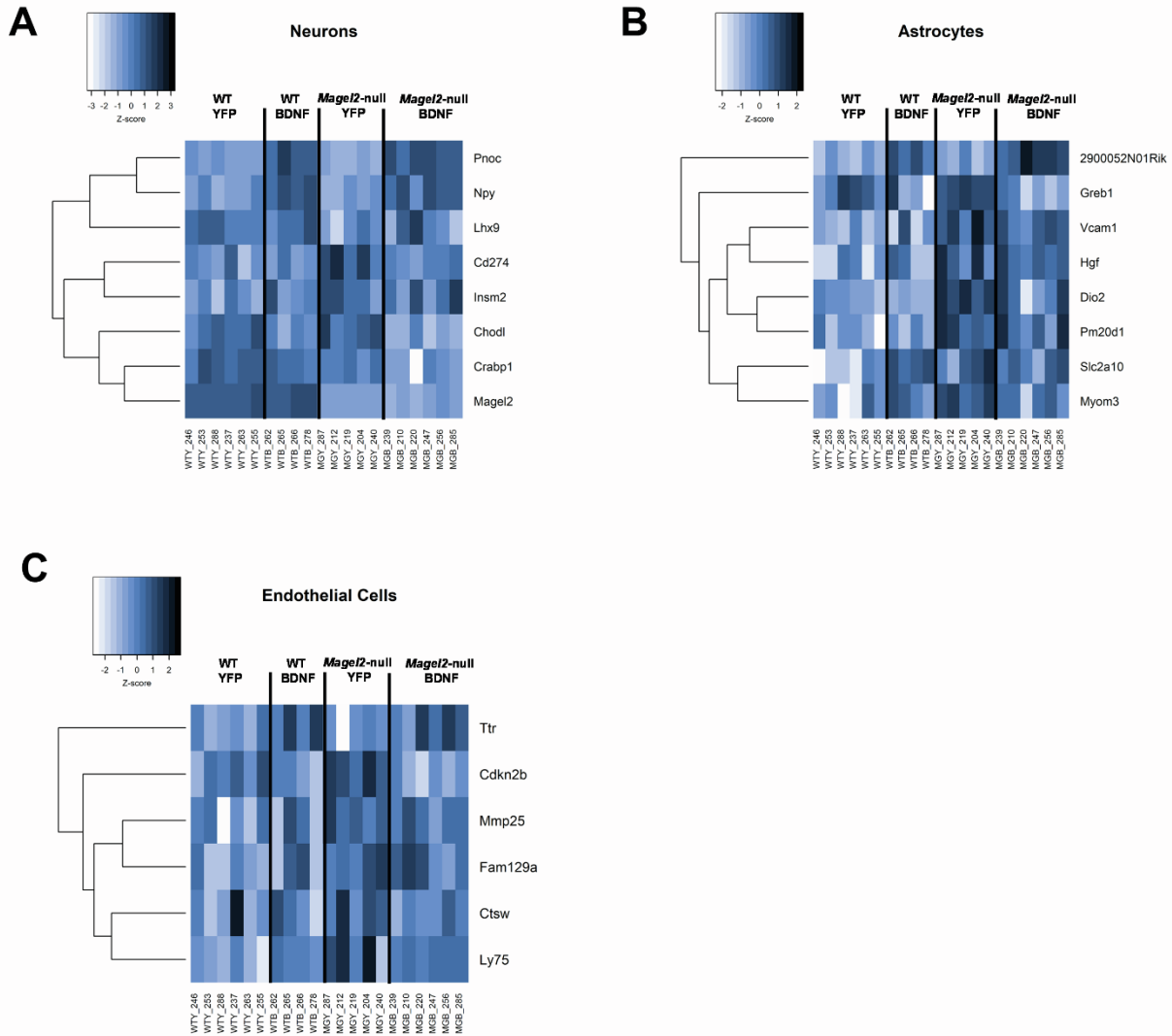


Figure S1. Additional cell-specific markers were identified as differentially expressed genes (DEGs). (A) Gene expression of putative neuron markers; all listed genes were identified as DEGs. (B) Gene expression of putative astrocyte markers; all listed genes were identified as DEGs. (C) Gene expression of putative endothelial cell markers; all listed genes were identified as DEGs. DEGs were identified using the following thresholds: $\log_2[\text{fold change}] < -0.585$ or > 0.585 (corresponding to fold change of 1.5), Q-value (or FDR p-value) < 0.05 . Sample size: WT YFP n=6, WT BDNF n=4, *Magel2*-null YFP n=6, *Magel2*-null BDNF n=6.

Table S1. DEGs for *Magel2*-null YFP vs WT YFP (genotype effect).

See Excel file.

Table S2. DEGs for *Magel2*-null BDNF vs. *Magel2*-null YFP (gene therapy effect).

See Excel file.

Table S3. IPA Canonical Pathways for *Magel2*-null YFP vs WT YFP (genotype effect).

See Excel file.

Table S4. IPA Canonical Pathways for *Magel2*-null BDNF vs *Magel2*-null YFP (gene therapy effect).

See Excel file.

Table S5. Primer sequences used for qPCR.

Gene	Sequence
<i>Acacb</i>	ATCCCTCCCTACCTCTGCTG GGATGGTGGCTATCTGCTGG
<i>Actinb</i>	ACCCGCGAGCACAGCTT ATATCGTCATCCATGGCGAACT
<i>Adipoq</i>	CCCTCCACCCAAGGGA ACT CCATTGTGGCCAGGATGTC
<i>Adrb3</i>	GGACGCTGTTCTTTAAAAGCA TCCATCTCACCCCCCATGT
<i>Aim2</i>	CTGGCCGCATAGTCATCCTT AGTCCCAGGATCAGCCTAGA
<i>BDNF</i>	CCATAAGGACGCGGACTTGT AGGCTCCAAGGCACTTGACT
<i>Ccl2</i>	GCTGTAGTTTTTGTACCAAGC AAGGCATCACAGTCCGAGTC
<i>Crh</i>	TGGCCCCAAGGAGGAAA CCACTGCAGCTCCAAATAAAAA
<i>Cx3cr1</i>	TCACCGTCATCAGCATCGAC CGCCAGACTAATGGTGACA
<i>Cxcl10</i>	AAGTGCTGCCGTCATTTTCT CTTCCCTATGGCCCTCATT
<i>Glut4</i>	TTATTGCAGCGCCTGAGTCT GGGTTCCCATCGTCAGAG
<i>Hprt1</i>	TGTTGTTGGATATGCCCTTG GCGCTCATCTTAGGCTTTGT
<i>Hsl</i>	GCGCCAGGACTGGAAAGAAT TGAGAACGCTGAGGCTTTGAT
<i>Lep</i>	ATTCACACACGCAGTCGGTAT AGCCAGGAATGAAGTCCAA
<i>Mc4r</i>	CACTGTGTCAGGCGTCCTCTT ATGGAAATGAGGCAGATGATGA
<i>Nfkbia</i>	TGCCTGGCCAGTGTAGCAGTCTT CAAAGTCACCAAGTGCTCCACGAT
<i>Pparg</i>	ATGGGTGAAACTCTGGGAGATTCA CTTGGAGCTTCAGGTCATATTTGTA
<i>Pparg1a</i>	AAGTGTTGGA ACTCTCTGGA ACTG GGGTTATCTTGGTTGGCTTTATG
<i>Pten</i>	TGGATTCGACTTAGACTTGACCT GCGGTGTCATAATGTCTCTCAG
<i>Socs3</i>	ATGGTCACCCACAGCAAGTTT TCCAGTAGAATCCGCTCTCCT
<i>Trem2</i>	ACAGCACCTCCAGGAATCAAG AACTTGCTCAGGAGAACGCA

<i>Ucp1</i>	CGATGTCCATGTACACCAAGGA CCCGAGTCGCAGAAAAGAAG
<i>Vegfa</i>	TACCTCCACCATGCCAAGTG CATGGGACTTCTGCTCTCCTTCT