Supplementary material

Autism Risk Gene *Cul3* Alters Neuronal Morphology via Caspase-3 Activity in Mouse Hippocampal Neurons

Qiang-qiang Xia¹, Anju Singh¹, Jing Wang¹, Zhong Xin Xuan¹, Jeffrey D. Singer², Craig M. Powell^{1*}

¹Department of Neurobiology, Marnix E. Heersink School of Medicine & Civitan International Research Center, University of Alabama at Birmingham, Birmingham, AL, United States. ²Department of Biology, Portland State University, Portland, OR, United States. *Corresponding author: Craig M. Powell (craigpow@uab.edu).

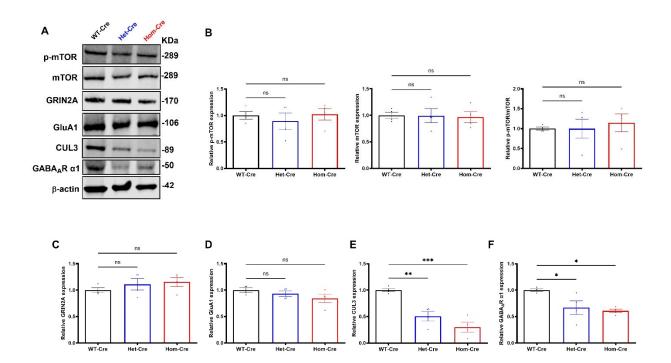


Fig.S1. *Cul3* homozygous deletion and heterozygous reduction decrease GABA_A receptor but not ionotropic glutamate receptor expression in primary cultured hippocampal neurons.

(A-F) Representative immunoblots (A) and graph of group data (B-F) for anti-p-mTOR, anti-mTOR, anti-GRIN2A, anti-GluA1, anti-CUL3, anti-GABA_AR α 1 and anti- β -actin blots following AAV-Cre-GFP (WT-Cre, Het-Cre, Hom-Cre) transduction in cultured *fCul3* hippocampal neurons. *P<0.05, **P<0.01, ***P<0.001, ****P<0.0001, ordinary one-way AVONA with Dunnett's multiple comparisons test; bars represent mean ± SEM, 4 separately derived neuronal cultures.

Data Availability Statement: The data set analyzed in this paper is available at the GIN repository (https://doi.org/10.12751/g-node.bh6pvf).